

Profile of the British Columbia High Technology Sector

A joint project of BC Stats
and the Ministry of Economic Development

2006 Edition



**BRITISH
COLUMBIA**

The Best Place on Earth

BC STATS



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April 2007



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National Library of Canada Cataloguing in Publication Data

Main entry under title:

Profile of the British Columbia high technology sector. – 2006 ed.-

Annual.

"A joint project of BC Stats, and Leading Edge British Columbia. "

Continues: The British Columbia high technology sector, ISSN 1206-9191

ISSN 1488-4216 = Profile of the British Columbia high technology sector

1. High technology industries - British Columbia - Statistics - Periodicals. 2. High technology industries - Economic aspects - British Columbia - Statistics - Periodicals. I. BC Stats. II. Leading Edge British Columbia. III. Title: British Columbia high technology sector. IV. Title: BC high technology sector.

HC79.H53L38 338.476213'09711021 C99-960240-3

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Executive Summary

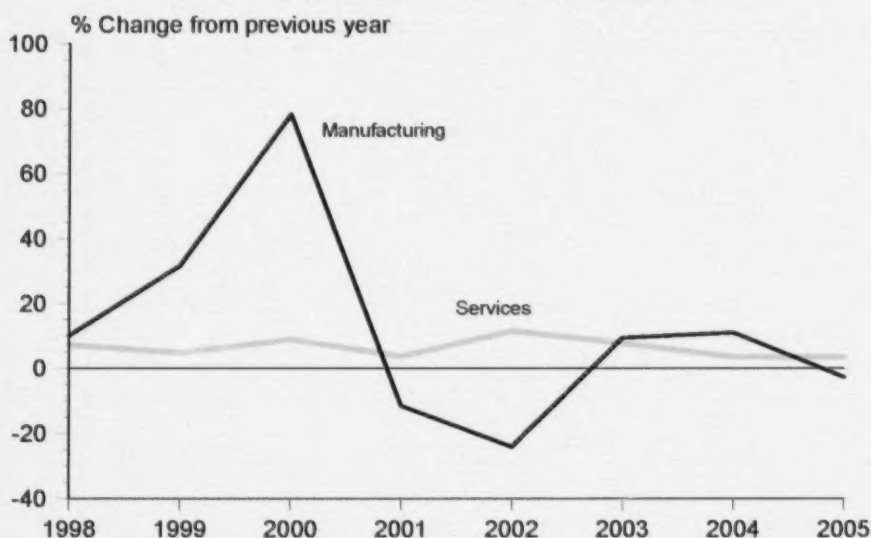
British Columbia's high technology sector is still relatively small, but it is growing and is becoming a more integral part of the provincial economy. While the sector as a whole may not rank prominently compared to other high tech jurisdictions, BC is home to some high tech clusters, such as fuel cell development and motion picture production, that are world class and, in some cases, world leaders. Other sectors, such as biotechnology and research and development are also starting to attract attention in the province.

BC's high technology sector expanded in 2005

Although it trailed the national growth rate for some indicators, British Columbia's high tech sector recorded increases in every measure in 2005. The province ranked ahead of the other three high tech provinces (Ontario, Quebec and Alberta) in employment expansion and was second in revenue growth, but trailed all three in terms of growth in gross domestic product (GDP).

British Columbia's high technology GDP climbed 2.4% in 2005, rising to almost \$8.7 billion. The service sector was responsible for all the growth as GDP in high technology manufacturing operations in the province slipped 2.7%, while output for high tech services jumped 3.5%. The high tech sector accounted for approximately 5.1% of British Columbia's overall economic output in 2005.

Growth in GDP for high tech services has helped offset declines in high tech manufacturing



Similar to GDP, high technology revenues in British Columbia also increased, rising 2.2% to \$14.2 billion. Once again, the service industries were the drivers of growth as a 4.6% jump in high tech services revenue offset an 8.4% plunge in manufacturing revenues.

The drop in revenues didn't hurt employment in high tech manufacturing, as there were 9.4% more jobs in the goods sector in 2005. The increase in manufacturing jobs, combined with a modest 1.5% rise in service sector jobs, resulted in a 2.9% jump in employment for the high technology sector as a whole. Total high technology employment in British Columbia climbed to 70,490 in 2005, with high tech services responsible for four-fifths of this figure. There were more people working in high tech jobs in BC in 2005 than there were working in the forest sector.

On the expense side, wages and salaries paid by BC high tech industries reached \$3.7 billion in 2005, up 4.8% compared to the previous year. At \$1,010, average weekly earnings in the high tech sector significantly exceed the overall BC average weekly wage rate of \$720.

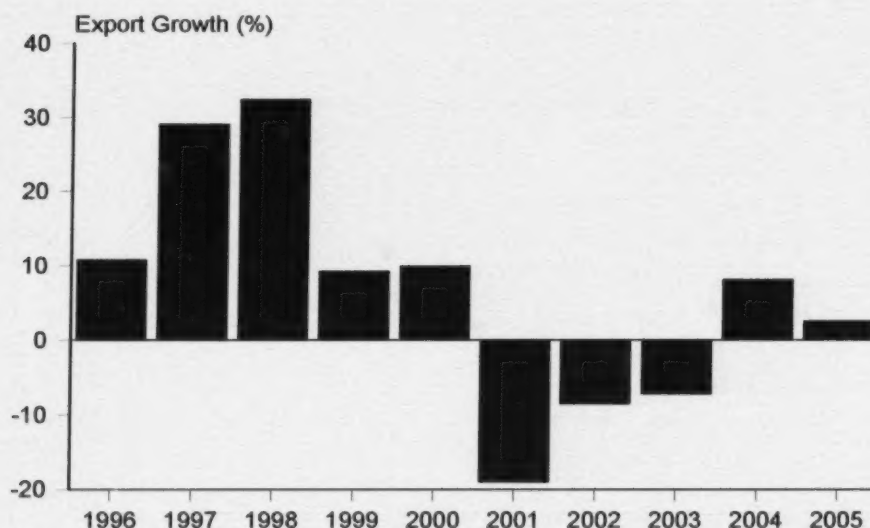
There were more high tech establishments in BC in 2005

There were 8,748 establishments with paid employees in British Columbia's high tech sector in 2005, which is 4.5% more than operated in the province in 2004. The bulk of these establishments, or 91%, were in service sector industries. There were 13,629 establishments with no employee payroll (which can be seen as a proxy for the number of self-employed people with no paid help) in the high technology sector, bringing the total number of high tech establishments to 22,377 in 2005.

Exports and imports of high tech goods increased in 2005

International trade is an important aspect of the high technology sector, as reflected in the high volume of two-way trade. The domestic market for high technology goods does not have sufficient volume to achieve the economies of scale needed to remain competitive and in some cases, BC manufacturers do not produce enough of some types of goods to satisfy domestic demand. As such, both exports and imports play an important role in BC's high tech sector.

In 2005, British Columbia origin exports of high technology goods climbed 2.6% to \$704 million, despite a 4.5% drop in exports to the United States, the largest market for high technology goods from British Columbia. Large increases in shipments to China, Japan and other countries of the Pacific Rim offset falling exports to the United States.

BC high tech exports experienced modest growth in 2005

The value of imports of high technology goods into British Columbia also increased, rising 4.8%. British Columbia imports substantially more high technology goods than it exports and, as a result, the province runs a trade deficit in these commodities. The faster growth in imports compared to exports meant that the trade deficit increased slightly in 2005, rising to just under \$3.4 billion.

Computers and telecommunications products dominate both exports from and imports to British Columbia, with life sciences products, which are mainly comprised of medical equipment, and aerospace goods the next two most important commodity groups. The United States is by far the most significant destination for BC high tech commodity exports with 69% of the goods shipped there. By comparison, only 14% of BC's high tech goods are shipped to Pacific Rim countries and 10% to the European Union. The United States is also the top origin of imports of high tech goods into BC, but the distribution is much less concentrated as only 40% of high tech imports come from the United States, while the Pacific Rim ships 36% of the high tech goods destined for British Columbia. Mainland China is the predominant supplier of high tech goods to BC within the Pacific Rim region, as 15% of all high tech commodity imports into BC in 2005 were from that country.

As important as trade in goods is to BC's high tech sector, it is still small compared to trade in services. In 2005, the value of high tech service exports was over three times that of international shipments of high tech goods. The value of high tech service exports from BC surged 12.1% in 2005, largely due to strong growth in computer

and related services, as well as motion picture production and post-production.

High technology firms in the service sector in British Columbia are facing challenges from companies in countries such as India, China and Russia as offshoring of IT services has become common and lower costs of labour in these countries offer potential savings to consumers of these services. Although Canada is one of the top countries in the world in terms of attracting "offshore" service work, it may have already lost some ground to these developing competitors. However, Canada offers some advantages that could outweigh cost considerations, such as a low-risk environment, well-established infrastructure and world-class education system. Also, while Canada may be at a disadvantage compared to some of its competitors in terms of compensation costs, it still compares favourably to the United States and most Western European countries. These advantages could help BC companies stay competitive for offshore work in high tech services, despite the challenges from emerging economies.

BC ranks fourth in the country in most measures of high tech

Compared with the rest of Canada, British Columbia's high technology sector ranked fourth in most measures of high technology, including GDP, revenue, employment and value of international exports. The province has a much smaller high tech sector than the majority of states in the US as well, with high technology making up a far smaller share of employment and GDP compared to most of the states studied.

Nevertheless, British Columbia's high technology sector has undergone significant growth in the last decade and is likely to emerge as an even more important segment of the provincial economy in the years to come. The increasing penetration of high technology into all facets of life, including the adoption of high technology procedures and equipment in many "traditional" industries, such as forestry, mining and agriculture, should ensure that this sector will continue to expand and British Columbia's presence in the sector should continue to grow as well.

Introduction

The BC high technology sector

The concept of high technology is one that is constantly changing. At one point in human history, the wheel would have been considered high technology. It revolutionized human development and became the central component of much of the technology developed thereafter. The pace of technological advancement has quickened over time and older technologies have been supplanted by newer, more efficient ones. Some of the technological achievements of the last decade or even the last few years are things that were not even contemplated as little as 20 years ago.

For example, it is reputed that back in 1981, Bill Gates said that "640 k ought to be enough for anyone." Gates has denied saying this, but it spotlights the difficulty in predicting the future of technological advancement. The rapid rise of the Internet and the proliferation of high tech devices such as multi-use cell phones, DVD players and so on have changed the way we live and do business. Technological advancements have dramatically altered our economic and social landscape, which is why the role of technology in the economy is a vital area of study.

The *Profile of the High Technology Sector* is part of an ongoing project to monitor the growth and evolution of the high technology sector in British Columbia by evaluating the economic contribution of firms in the province that produce high technology goods and services. The key indicators examined include gross domestic product, revenue, employment, wages and salaries, establishment counts and international trade.

The designation of a high technology sector among the other industrial sectors of the economy provides a very useful analytic tool. This is based on the premise that high technology firms behave in a way that allows them to be understood as a group, and that programs or policies can be tailored to their needs.

Defining high technology

High technology is usually associated with growth and development. Since research and development (R&D) is the basis for technological advancement, those industries that perform a significant amount of R&D often have a considerable high tech component. However, an industry does not necessarily need to have a high degree of R&D involvement to be considered high tech. Industries that produce goods or services that are uniformly recognized as high tech are also included in the high technology sector. The con-

cept of the high technology sector used in this report is basically product-based; therefore, some manufacturers that employ advanced processes are not included. In other words, just because a good is produced using advanced processes does not automatically make it a high tech product. For example, a mushroom produced in a high tech greenhouse is still just a mushroom.

High technology is described using two different definitions – one that is industry-based and another that is commodity-based

High technology, by its very nature, is constantly changing and, as such, is difficult to define. Nevertheless, there are many different definitions of high technology in use around the world. The *Profile* report uses two different definitions—one that is industry-based and another that is commodity-based—to measure, respectively, high tech's contribution to the British Columbia economy and the volume of international trade in high technology goods.

Since the inception of the *Profile* reports in 1996, statistics on the high technology sector have been built up using information from industries within the sector. A more accurate approach would be to identify the firms felt to comprise the sector, then conduct surveys to obtain the information needed to conduct the desired analyses; however, the cost of such an approach would be substantial. Data by standard industries defined under the North American Industry Classification System (NAICS)¹ is largely available from Statistics Canada, which makes an industry-based approach not only significantly less costly, but also offers consistency with other Statistics Canada data, as well as comparative data for other provinces and the United States and a reasonable degree of accuracy.

The BC Stats definition of high technology is British Columbia-focused

It should be noted that the high technology definition used by BC STATS is a British Columbia-focused classification and that some high technology industries that are not present in British Columbia, but may be prevalent elsewhere, may be excluded from the data presented in this report. Conversely, some industries that have a substantial high tech component in British Columbia and are therefore included in the high technology sector may be mainly low tech in other regions. For example, British Columbia has a significant fuel cell cluster, including the company Ballard Power Systems, which is considered a world leader in the design and production of fuel cells. The fuel cell industry is included in the NAICS classification 335990 (all other electrical

¹ NAICS is a system of classifying industries developed in cooperation between Statistics Canada, the United States Office of Management and Budget and the Instituto Nacional de Estadística, Geografía e Informática of Mexico.

equipment and component manufacturing), which is generally not considered a high technology industry, but with the fuel cell cluster in BC it makes sense to include it in the high tech sector.

The industry-based definition includes manufacturers of pharmaceuticals and other chemicals, computers and other electronic products, aerospace products and parts, and medical equipment and supplies. Also included are service industries such as engineering, computer services, motion picture and video production, surveying and mapping, scientific and technical consulting, telecommunications, and research and development.

For more discussion on the industry-based definition, including a complete listing of the industries included in BC STATS' high technology definition, see Appendix A, "Defining the High Technology Sector."

While an industry-based definition makes sense when examining high technology GDP or employment, it is not really appropriate for looking at trends in high tech commodity exports and imports. For this purpose, a second, commodity-based, definition was developed. This definition was constructed using harmonized system codes, which are the commodity classification codes used in Canadian customs documents. The list of commodities to be classified as high technology was based on the US Bureau of the Census' advanced technology products (ATP) list, which has been established for quite some time and is a recognized definition of high technology goods. Since Canadian and American commodity codes are identical only at the six-digit level and Canadian export codes are eight digits and import codes are ten digits, it was necessary to do some conversion. As a result, the final definition may not be completely identical to that used in the United States; however, it should be reasonably similar such that broad comparisons can be made.

For more detail on the commodity-based definition and a brief description of the ATP categories, see Appendix B, "Defining High Technology Commodities."

New to this year's edition

This report includes the latest information available as of January 2006. All data in this paper refer to the calendar year 2005. It should be noted that the data included in these annual reports contain revisions, such that data for previous years that have been published in earlier reports may be different from those contained in this report. With this edition, the tables now include a notation of "r" to indicate data that have been revised from previous editions and "p" to indicate that the data are preliminary. Most data for 2005 are

denoted as preliminary, which should not be construed as meaning that there are problems with the data, but rather that they are based on information that itself is preliminary and therefore are subject to greater revision than data for previous years.

The amount of data presented in this report has increased, including tables highlighting trade with Mainland China and a detailed look at high technology in the United States, as well as selected states that either comprise a high percentage of the nation's high technology production, or for which high technology represents a substantial portion of the state's economy. The addition of analysis on comparative technology sectors in the United States provides a useful benchmark against which to compare BC's high tech sector.

Readers should note that graphs and text in this publication deal only with the highlights of the information that has been collected. The data tables in the final sections contain additional detail that can prove valuable.

Input Indicators of the BC High Technology Sector

This *Profile* report provides a basic overview of the outputs of the high technology sector in British Columbia; however, it is also useful to look at the inputs to the high technology sector. To this end, BC STATS produces a companion report: *Input Indicators of the BC High Technology Sector*. The high technology sector and the infrastructure network that surrounds it is a complex system with many players and interactions. The *Indicators* report provides measures of the inputs to the high technology sector and the overall climate of innovation. It covers a variety of activities with respect to high technology in the educational, business, government, external and labour sectors. Whenever possible, the indicators are presented in comparison to other provinces, which serve as benchmarks for the situation in British Columbia.

Profile and Trends

High tech sector GDP continued to expand in 2005

High technology **gross domestic product (GDP)** edged up 2.4% in 2005, climbing to almost \$8.7 billion.² However, the growth was confined to the service sector as GDP in high technology manufacturing operations in the province slipped 2.7% compared to 2004.³ The decline in manufacturing GDP was offset by a 3.5% jump in GDP for high tech services.

**BC high tech GDP grew
2.4% in 2005 to almost
\$8.7 billion**

Gross domestic product (GDP) is a measure of value added, which is essentially the difference between the cost of the material inputs and purchased services used in production and the price at which a good or service is sold. GDP can be reported using either current or constant dollars. Constant dollar, or real, GDP is the best measure for understanding and illustrating trends over time. Constant dollar figures have been adjusted to remove the effect of price changes (i.e., inflation and deflation) over time. This means that constant dollar values can be viewed as measures of the actual value added, or net output, of an industry.

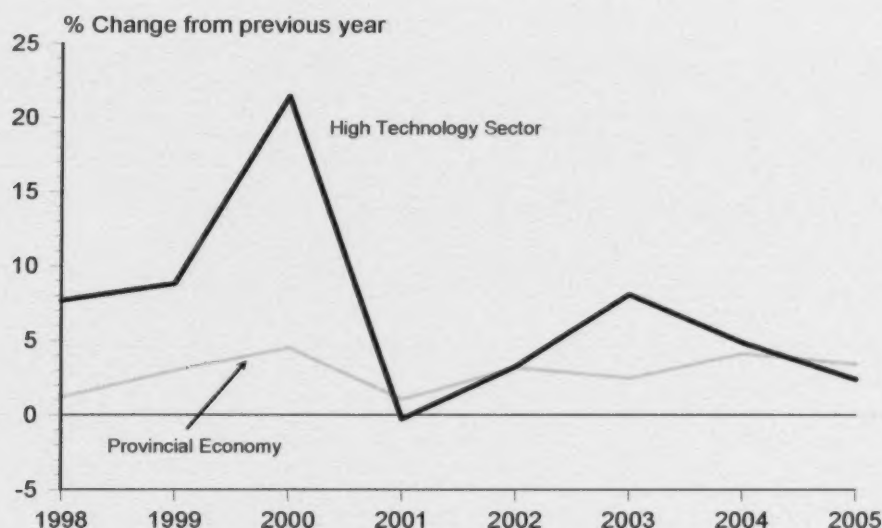
As a result of the sub-par performance in the manufacturing sector, the growth in high tech GDP trailed that of BC's industrial aggregate output. This is only the second time in the last eight years that BC's overall economy grew faster than the high technology sector. In 2001, when high tech was suffering the effects of the dot com crash, total high tech GDP dipped 0.3%, while BC's total GDP grew 1.1%. The following year, both the high tech sector and BC's overall economy grew at the same rate of 3.2%.

² All GDP figures quoted in this paper are in 1997 constant dollars unless otherwise stated.

³ Throughout this report, there are two types of industries examined: service and manufacturing industries. High tech service industries—computer design, engineering, telecommunications, film and video production and information services—do not make a tangible good. Instead they provide expertise, such as software creation, information technology system management, the planning and design of a bridge, or the analysis of a blood sample for medical diagnosis. Manufacturing industries are those that take raw materials, or the products made by other manufacturing industries, and make new products. High technology firms include those involved in manufacturing of aircraft, computer and related products and pharmaceutical goods, just to name a few. While companies often engage in a variety of activities that may include both a manufacturing and a service component, they are classified as either a goods or service-producing industry based on the activity that is their main source of revenue.

Figure 1

BC's high tech sector underperformed the overall economy in 2005



Examination of high technology output shows that the sector plays a significant role in BC's economy. In 2005, high technology industries generated about 5.1% of British Columbia's GDP, which is in the same ballpark as industries such as public administration and construction.⁴ The financial, insurance and real estate and leasing sector (including owner-occupied dwellings) generates the greatest contribution, at approximately 22% of GDP.

High tech comprises about 5.1 percent of British Columbia's GDP

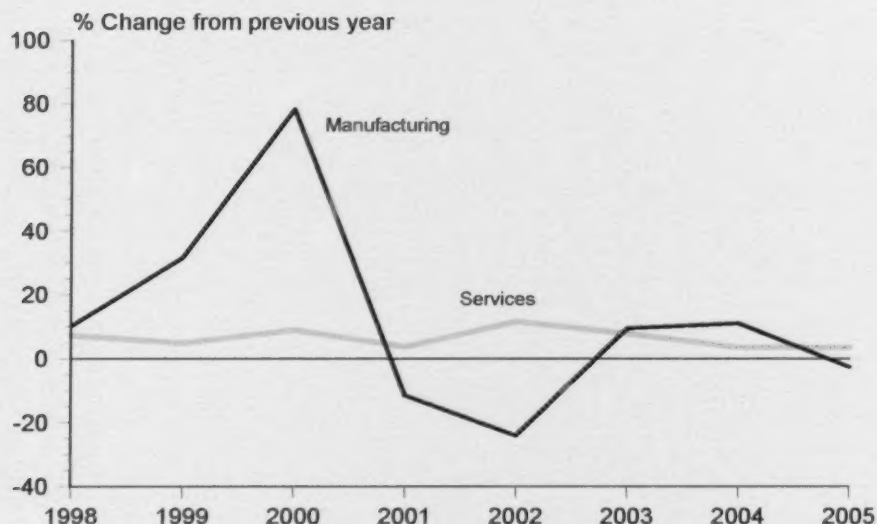
Services constitute the bulk of high tech GDP in BC

Services make up the large majority of British Columbia's high technology sector, with approximately 82%, or \$7.1 billion of total high tech GDP generated by the service sector in 2005. By comparison, high technology goods generated just over \$1.5 billion in GDP. Whereas high tech manufacturing GDP experienced two straight years of double-digit declines in 2001 and 2002 and another drop in 2005, GDP for high tech services has climbed steadily, posting growth of over three percent in each year since at least 1997. The expansion in the service sector has helped offset the declines in manufacturing.

⁴ This percentage is calculated using current dollar GDP estimates, since the constant dollar value of the BC industrial aggregate is chained and chained data is not additive, therefore the percentage can not be properly calculated.

Growth in GDP for high tech services has helped offset declines in high tech manufacturing

Figure 2



Although high technology in British Columbia grew slower than the overall economy in 2005, it has otherwise performed quite well over the last decade compared to other standard industries, ranking as one of the faster growing sectors in the provincial economy. From 1997 to 2005, high technology GDP increased about 70% compared to only 55% for BC's overall GDP.

BC GDP, 2005 (constant 1997 dollars)

	\$million	% change
Manufacturing	1,522	-2.7
Services	7,149	3.5
High Tech Total	8,671	2.4
BC Total	131,139	3.4

High technology revenue continued to grow in 2005

High technology revenues in British Columbia grew 2.2% in 2005 to \$14.2 billion. This was the fourth consecutive year in which high tech revenues in the province have increased. The growth was tempered by an 8.4% slump in revenues in the manufacturing sector, but robust growth of 4.6% in service industry revenues helped drive up overall high technology revenue.

High tech revenue in BC climbed 2.2% to \$14.2 billion in 2005

Revenue is the amount of money earned from the sale of goods or services by producers in an industry. It is a measure of the monetary value of an industry's goods and services, and in the manufacturing sector, is measured through the value of shipments. Revenue includes the cost of the inputs necessary to make the goods or services, while GDP is the amount remaining after all costs (except labour costs) have been paid.

With the exception of the "other services" industries, which include surveying and mapping, environmental and technical consulting, and research and development, all other service sector industry groups experienced growth in revenues. Revenue for the "other services" industries fell 11.3%, but strong growth in motion picture production and post production (+20.9%) and computer and related services (+10.4%), as well as more modest increases in telecommunications (+2.9%) and engineering revenue (+2.1%), more than offset the drop in "other services" revenue.

More people were employed by high tech in BC in 2005

High tech employment in BC increased 2.9% to 70,490 in 2005

Employment⁵ in the high tech sector in BC rose 2.9% in 2005 to 70,490 as both the service (+1.5%) and manufacturing (+9.4%) sectors took on more workers. The jump in high tech employment was slightly larger than the increase in overall employment in the province, which climbed 2.5%. The increase in manufacturing jobs occurred despite slumping revenues and a downturn in manufacturing GDP. This could be the result of a lag in hiring as manufacturing jobs continued to disappear in the last couple of years despite the turnaround that occurred in revenue and GDP in 2003 and 2004. It is possible that in anticipation of continued success, manufacturers ramped up their staffing, unaware that revenues would drop.

Approximately four out of every five workers in BC's high tech sector work in a service industry. The largest employer in the province's high technology sector is the computer and related services industry, which generates over a third (35%) of BC's high tech jobs.

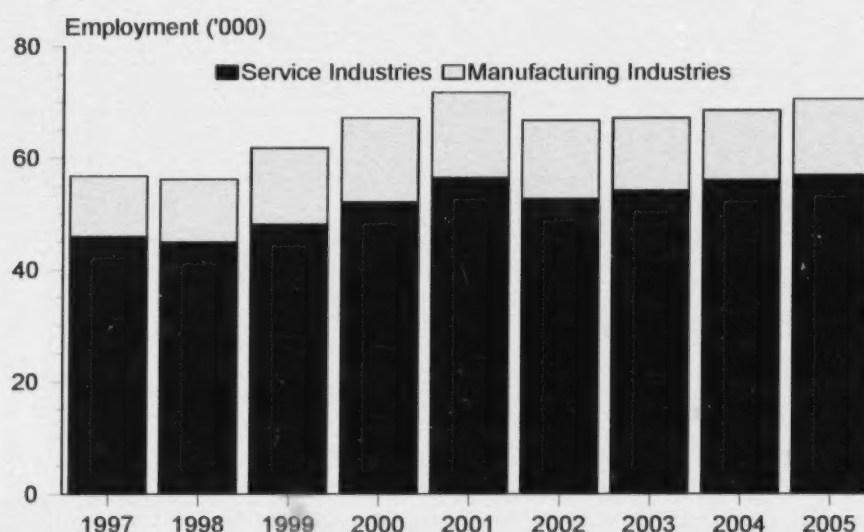
⁵ The measure of employment used in this report is based on Statistics Canada's Survey of Employment, Payroll and Hours (SEPH). This employer survey provides a wealth of detail about employment, wages and hours in a large number of industries. However, because it is an employer survey, the SEPH data does not include self-employed workers and workers in commercial fishing, agriculture and some services.

The data from SEPH give an average number of workers in an industry through the course of the year. If an industry is highly seasonal, the peak number of workers is offset by those months where there are fewer workers. A full-time worker is accorded equal status with a part-time worker. No attempt is made to measure the number of "person years" or "full-time equivalents."

Telecommunications businesses also employ significant numbers in BC, but the industry has shed over 5,000 jobs since 1997, including 840 between 2004 and 2005. However, the most recent drop is likely almost entirely due to the lengthy strike of Telus employees that took place in 2005. Since the data used to calculate high tech employment is based on an annual average, the four-month strike involving an employer the size of Telus would drag down total employment.

High tech employment increased in 2005

Figure 3



BC's motion picture production and post production industries saw the largest percentage increase in employment in 2005, adding almost 300 jobs, a bump of 5.9%. Computer and related services businesses also added a significant number of employees with 1,190 net new jobs, a rise of 5.0%.

BC Employment, 2005

	Workers	% change
Manufacturing	13,600	9.4
Services	56,890	1.5
High Tech Total	70,490	2.9
BC Total	1,723,970	2.5

BC's high technology sector employed approximately 4.1% of the province's work force in 2005. The 70,490 people working in high technology industries in BC in 2005 exceeded the total number of British Columbians working in the forest sector, which includes logging, silviculture and wood and paper manufacturing industries (approximately 59,900 employees).

**In BC, more people
work in high tech than
in the forest sector**

High tech wages and salaries continued to climb in 2005

The wages and salaries⁶ of employees in British Columbia's high technology sector jumped 4.8% from the pay doled out in 2004. This is slightly lower than the rate of growth of wages and salaries in the province as a whole (+5.4%). There was robust growth of 11.2% in wages and salaries in the manufacturing sector, matching the strong growth in employment, while services experienced a more modest 3.4% increase. The only industry to see a decline in wages and salaries was telecommunications, and once again this was due to the lengthy Telus strike. The motion picture industry had the largest percentage increase in compensation, with wages and salaries surging 20.9% over levels paid out in 2004. Computer and related services, which account for almost half of high tech services wages and salaries, boosted pay packets by 4.5%.

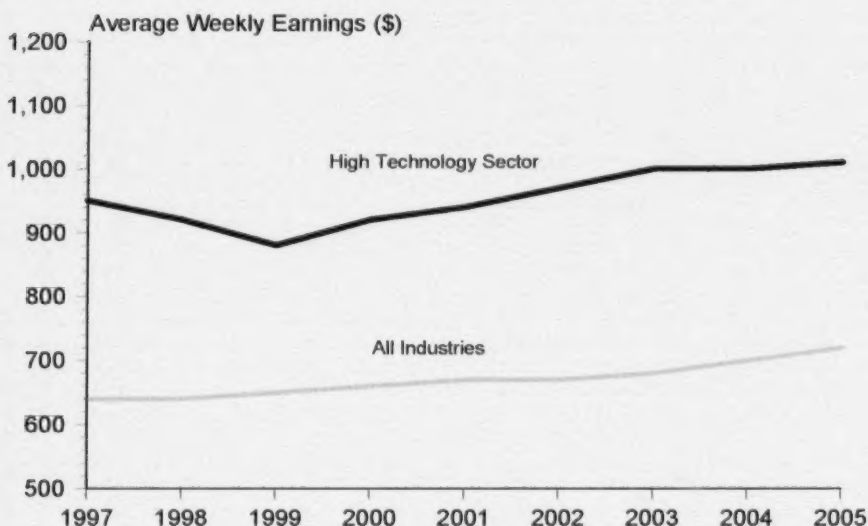
Average weekly earnings are far higher in high tech industries

Average weekly earnings in high technology industries increased 1.8% in 2005, well below the 2.8% increase in compensation for workers in the province as a whole. Employees in high technology occupations earned an average of \$1,010 per week, compared to an overall average of only \$720 for employees in all industries. The biggest difference between high tech wages and overall earnings was in the service sector, where the average weekly wage was \$1,020 in high tech industries compared to only \$675 in the service sector overall. Employees in high tech goods industries also earned more per week (\$1,000) compared to the overall average for workers in British Columbia's goods industries (\$899). The wage disparity in high tech is likely due to a combination of greater skill requirements relative to many jobs, as well as a strong demand for skilled high technology workers, therefore requiring greater pay to both attract and retain them.

⁶ Wages and salaries are based on the earnings of all workers in an industry who are on the payroll, from working owners and senior executives to junior support staff. While overtime and bonus pay are included, other benefits such as medical plans, stock options and time off in lieu of overtime are not. Like the employment values described earlier in this report, the wages and salaries data are calculated using source data from Statistics Canada's Survey of Employment, Payroll and Hours.

Wages in high technology industries are far higher than the average for all industries in the province

Figure 4



It is interesting to note that reduced demand for high tech workers following the bursting of the high tech bubble in 2001 did not result in a corresponding drop in average weekly earnings. This was particularly apparent in high tech manufacturing, where there was robust growth in average earnings at the same time that employment was tumbling. According to a Statistics Canada study from a few years ago,⁷ the occupations that were hardest hit by layoffs in the high tech sector were those with lower skill requirements, such as assemblers of high tech manufactured goods and clerical staff. As a result, there was a shift in the composition of high tech employment toward a higher share of skilled workers. Since these workers get paid more than those with less skills, this drove up the average earnings for the high tech sector overall.

The number of high tech establishments increased in 2005

There was a 4.5% jump in the number of high technology establishments in BC in 2005. Both manufacturing and service sector industries contributed to the increase, with high tech manufacturing establishments climbing 3.3% and the number of units in the high tech service sector rising 4.7%. Service industries dominate high technology in British Columbia as almost 91% of all high tech establishments are in the service sector. Excluding those establishments with no employ-

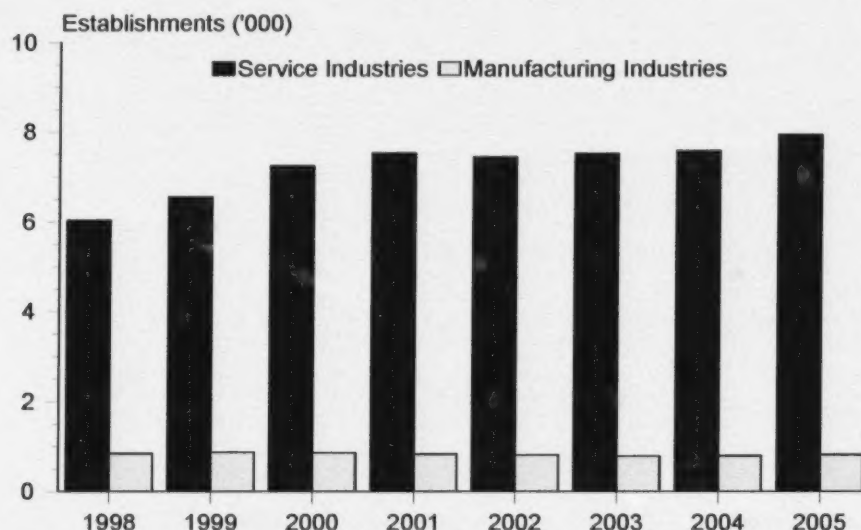
Service industries dominate the count of high technology establishments

⁷ Bowlby, Geoff. (Winter 2003). High-tech—two years after the boom. *Perspectives*, Statistics Canada catalogue no. 75-001-XPE, 27-30.

ees, there were 8,748 high tech establishments in the province, of which 7,933 were in service industries, with the remaining 815 in manufacturing industries.

An **establishment** is the smallest accounting unit within a firm that can report certain financial data. A single company may contain a number of establishments. A branch location does not always signify the existence of an establishment; for example, bank branches are not identified as individual establishments. Furthermore, to be included in the tabulations, the establishment must have paid employees; owner-operated firms with no paid employees are not included.

Figure 5
Almost 91% of high tech establishments in BC are in service industries



Computer and related services are the largest component of British Columbia's high tech sector, comprising 35% of high technology establishments. This industry was also responsible for a large portion of the growth in 2005 as the number of establishments in computer and related services grew 5.7%. There was robust growth in each of the other major service industry groups as well, with the exception of telecommunications, where the number of establishments remained the same as in 2004. Engineering (+3.8%), motion picture production and post production (+4.6%) and other services (+4.3%) all experienced significant increases in the number of establishments. In the "other services" group, most of the growth occurred in scientific and technical consulting businesses and research and development industries.

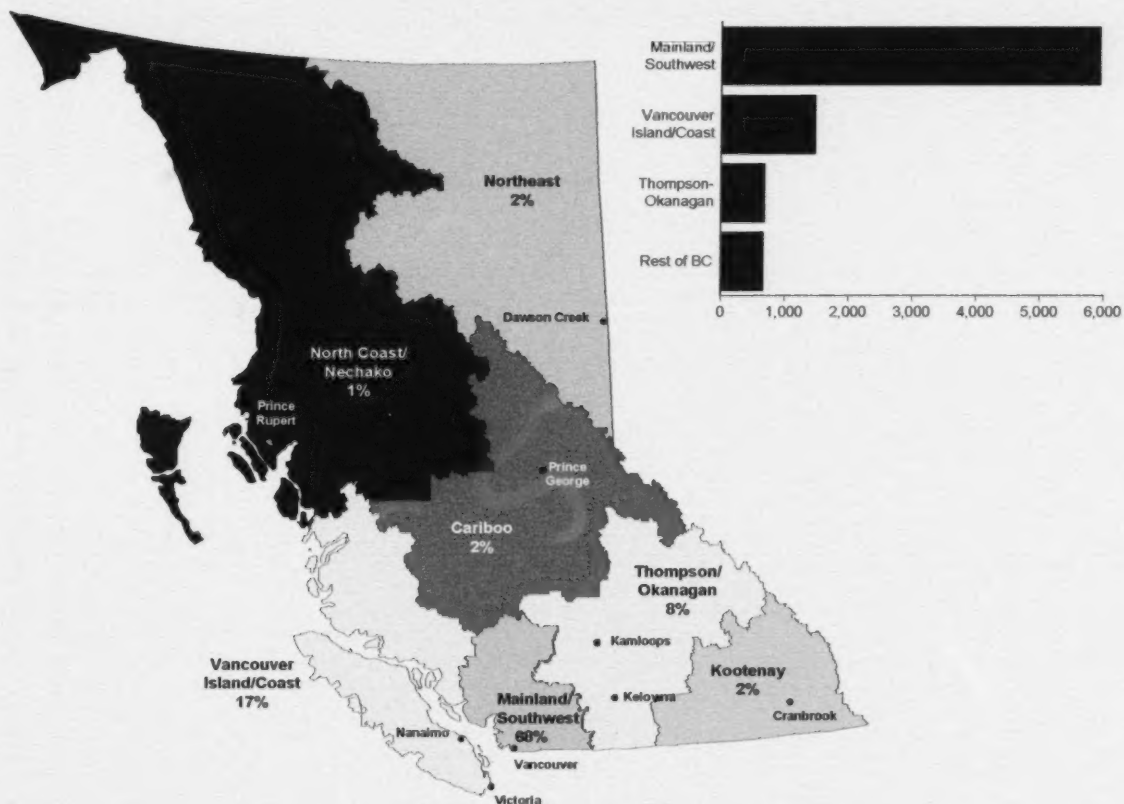
In the manufacturing sector, computer and other electronics are the largest component and these industries were responsible for the bulk of growth in high technology manufacturing establishments.

High tech establishments are located where the people are

As one would expect, high technology establishments tend to be located in the most populous areas of the province. In 2005, over two-thirds (68%) of high technology establishments in British Columbia were located in the Mainland/Southwest Development Region (which includes Greater Vancouver). Most of the remaining high tech businesses were situated in either Vancouver Island/Coast (17%) or Thompson-Okanagan (8%).

Over two-thirds of high tech establishments are in the Mainland/Southwest, 2005

Figure 6



With the exception of Cariboo (-5.1%), all other regions of the province experienced growth in the number of high tech establishments between 2004 and 2005. Over half (58%) of the net new high technology establishments formed in British Columbia in 2005 were lo-

cated in Mainland/Southwest (+3.9%) and most of these were in Greater Vancouver. The highest growth rate was recorded in Nechako (+9.4%), followed by Northeast (+8.6%), although these rates represent small numbers.

High tech manufacturing industries employ more people

Establishments in the service sector tend to have fewer employees compared to those in manufacturing industries. Of businesses with employees, 11% of high tech manufacturers employed more than 50 workers, compared to just 4% of high tech service industries. While just over half (52%) of high tech manufacturing industries (excluding self-employed with no paid help) have less than five employees, over two thirds (69%) of the establishments in the service sector fit this description.

Self-employment⁸ in the high tech sector

Self-employment is widespread in the high technology sector

Some of the high technology industries are ideally suited to self-employment, where the skills, knowledge and energy of the individual are more important than large capital investment. The data appears to confirm this, as 61% of the businesses in BC's high technology sector had no paid employees in 2005. Businesses in the service industries are far more likely to be comprised of self-employed individuals with no employees than those in manufacturing. In 2005, 62% of all high tech service establishments had no employees, compared to only 37% of high tech manufacturing businesses.

Establishments, 2005

	Without Employees	With Employees
Manufacturing	481	815
Services	13,148	7,933
High Tech Total	13,629	8,748
BC Total	182,495	162,732

⁸ There is currently no perfect measure of self-employment in the high tech sector available. The figures quoted here are based on a tabulation of the number of establishments with no employee payroll. This approximates the number of self-employed with no employees (those with employees will be counted in the number of establishments discussed earlier). This is only an approximation because the figure may also include companies that hire only contractors, or companies with unpaid family workers. Also, small unincorporated businesses with annual sales of less than \$30,000 are not captured. *Note that it would be erroneous to add these establishment counts to the total number of high technology workers reported elsewhere in this report due to the differences in what they are measuring.*

The high tech sector has a significantly higher proportion of businesses without employees compared to the rest of the economy. The proportion of all businesses in the province that had no employees in 2005 was only 53%.

Trade is of vital importance to BC's high technology industry

International trade is an important aspect of the high technology sector, as reflected in the high volume of two-way trade. The domestic market for high technology goods does not have sufficient volume to achieve the economies of scale needed to remain competitive. Therefore, access to international markets is extremely important as it allows BC producers of high tech goods to focus on market niches. At the same time, BC manufacturers do not produce enough of some types of high technology equipment to satisfy the domestic demand from either consumers or the high technology industry itself, and as a result, large volumes of goods are imported into the province.⁹

High tech exports increased in value in 2005

There was a modest 2.6% increase in the value of high technology commodity exports from British Columbia in 2005. The increase occurred despite a 4.5% drop in exports to the United States, the largest market for high technology goods from British Columbia. Part of the reason for the subdued performance is the rapid appreciation in the Canadian dollar in recent years. Valued in American currency, growth in exports of high technology goods has been considerably stronger over the last three years, including a 10.3% jump in 2005.

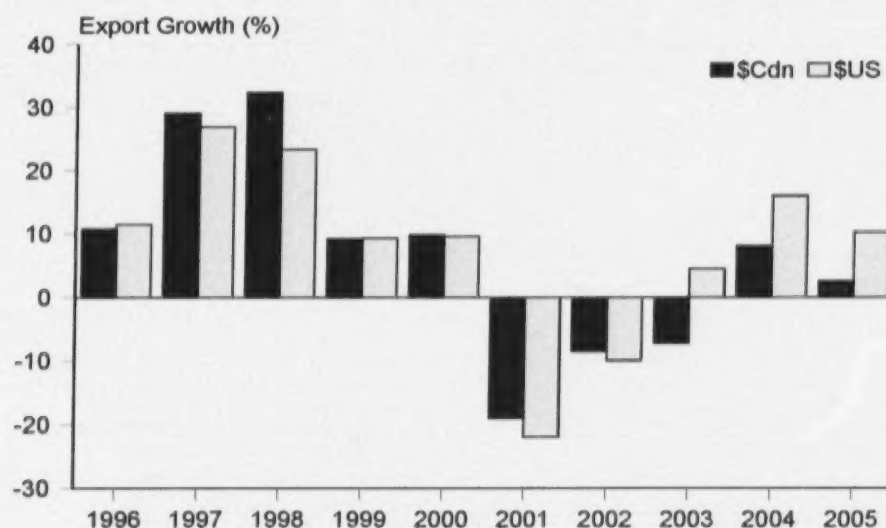
**BC origin high tech
exports climbed 2.6%
in 2005**

The overall value of all goods exported from British Columbia climbed 10.2% in 2005, significantly outpacing international shipments of high technology goods. High technology goods comprised approximately 2.1% of all BC commodity exports in 2005, which is well down from the peak of 3.0% recorded in 1998. Slower growth in high tech exports compared to commodity trade as a whole since that peak year has led to a diminishing share for high technology commodities.

⁹ High technology goods referred to in this document are based on a list developed by the US Bureau of the Census and modified to fit Canadian conditions. See Appendix B, "Defining High Technology Commodities" for more information.

Figure 7

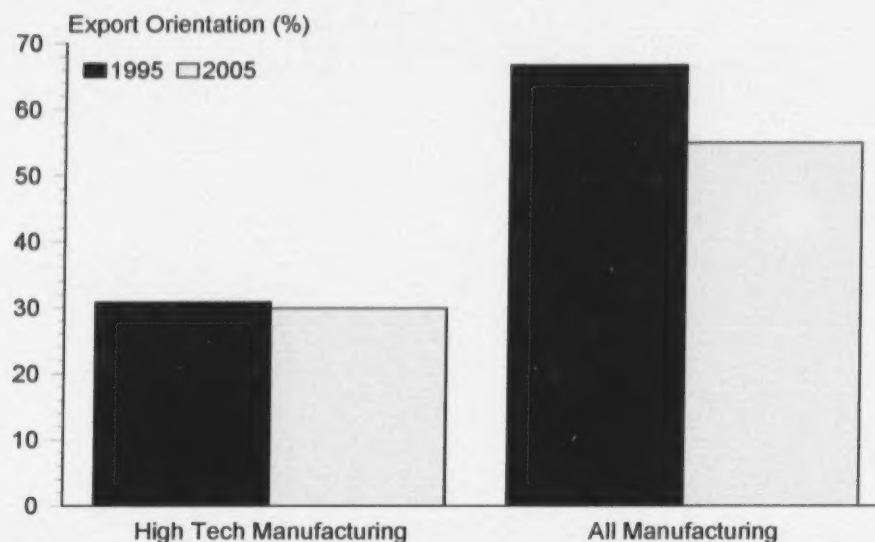
BC's high tech exports edged up in 2005, although growth was much stronger when converted to American dollars



While slower export growth may be a concern, BC's high technology manufacturing sector tends to be geared more toward the Canadian market, particularly compared to manufacturing in the province in general. In 2005, only 30% of total high tech shipments were exported compared to 55% of manufactured goods overall. In addition, this ratio has contracted somewhat over the last decade, such that a larger share of high technology goods produced in British Columbia are now destined for the Canadian market.

Figure 8

A smaller portion of high technology products are exported compared to total manufacturing



Most high tech commodity groups saw an increase in exports

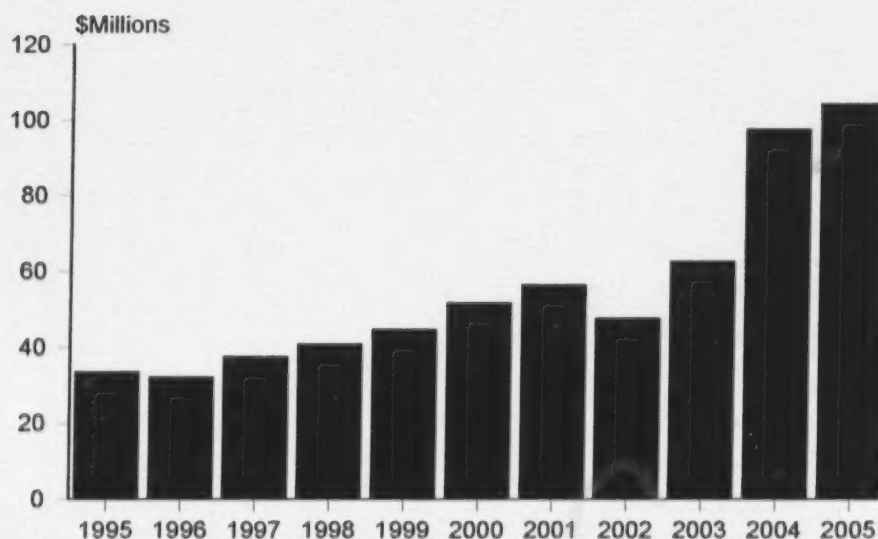
In 2005, the value of exports increased for all high tech commodity groups with the exception of life sciences.¹⁰ This was the first time in more than a decade that exports of life sciences products have declined. A substantial drop in shipments of electro-diagnostic apparatus and mechano-therapy and massage appliances was responsible for the decrease.

International shipments of computers and telecommunications equipment, the largest category of advanced technology product exports from BC, climbed 9.9% to over \$285 million, the highest level since 2000, but still well below the peak of \$443 million exported in 1998. Among the other commodity groups, aerospace products recovered all the ground lost in 2004 and then some, with exports soaring 58.7% to reclaim third rank among the commodity groups after computers and telecommunications and life sciences products. Computer integrated manufactured products are the other major group of high tech exports from British Columbia and shipments of these goods have expanded significantly, more than doubling in just three years.

Exports of aerospace products rebounded in 2005

Exports of computer integrated manufactured products have doubled in just the last few years

Figure 9



Exports of opto-electronic goods and material design products both increased after four consecutive years of decline, but in both cases, values shipped in 2005 are still well below peak levels reached in

¹⁰ For information on high technology commodity groups, see Appendix B.

2000. In the case of opto-electronic goods, large shipments of photosensitive semiconductor devices, photovoltaic cells and light emit diodes, and other optical devices, appliances and instruments boosted exports for a few years, but those increases appear to be due to a short-term lift in demand for those products. The substantial jump in exports of material design goods that occurred in the late-1990s and into the first couple years of this decade was due to large shipments of optical fibre products. With the exception of that short period, British Columbia has not been a large exporter of material design goods.

BC high technology exports by commodity group - 2005

	\$ millions	% change
Computers and Telecommunications	285.1	9.9
Life Sciences	140.2	-33.4
Aerospace	109.6	58.7
Computer Integrated Manufacturing	104.2	7.0
Opto-Electronics	35.7	4.9
Electronics	15.4	72.9
Biotechnology	7.9	84.4
Weapons and Nuclear	4.1	191.0
Material Design	1.9	29.5
Total	703.9	2.6

The US is the primary destination for BC high tech exports

As with exports in general, the United States is the top destination for high technology goods exported from British Columbia. In 2005, BC exported \$486 million worth of high tech goods to the United

The US was the destination of 69% of BC high tech exports

States, or 69% of all high tech goods exported from the province. This is significantly higher than the proportion of total commodity exports from BC that were shipped to the United States as only 65% of BC's total goods exports were US-bound in 2005.

However, the share of BC's high technology exports headed to the United States has slipped in recent years. As recently as 2002, over 80% of BC's high tech goods went to the United States.

High technology exports to Mainland China grew 61.8% to \$23 million in 2005, vaulting that country past the United Kingdom to place a distant second to the United States as a destination for high tech exports from British Columbia. Exports to Japan experienced even more impressive growth, climbing 80.8% to \$20 million to rank third. The United Kingdom dropped to fourth as shipments to that country slumped 20.6% in 2005.

Despite the drop in shipments to the United Kingdom, exports to the countries of the European Union climbed 7.3%, spurred largely by shipments to Italy, which more than doubled in 2005. However, the most significant region for growth in exports was the Pacific Rim, which took in 47.1% more of British Columbia's high technology goods compared to 2004. In addition to Japan and China, Taiwan (+139.9%), Australia (+40.9%) and Hong Kong (+37.0%) also experienced robust double-digit increases.

BC high technology exports by destination - 2005

	\$ millions	% change
United States	486.0	-4.5
European Union	69.9	7.3
United Kingdom	15.4	-20.6
Germany	10.4	9.9
Pacific Rim	97.4	47.1
Mainland China	23.3	61.8
Japan	20.0	80.8
Rest of the world	50.6	10.2
Total	703.9	2.6

Most high tech exports from BC move by truck or rail

The growth in exports to the Pacific Rim and concurrent drop in shipments to the United States has resulted in a slight shift in the choice of mode of transport for high technology goods. Airfreight has supplanted transport over land by truck or rail as the most popular method for moving high technology goods out of British Columbia to international destinations. In 2005, just over half (51%) of all BC high tech exports were transported by air, while the next most significant mode of transport was over land by truck or rail (47%). Only a small portion of BC's high tech goods are shipped by sea (2%).

The destination of the goods is a significant determinant of the mode of transport. The large majority of high tech goods shipped to the United States travel over land (68%), whereas merchandise exported to most other countries is almost exclusively transported by air (92%).¹¹

¹¹ Note that the shipments by land to destinations outside the United States are not all destined for Mexico. Goods destined for overseas destinations may leave BC by truck or rail to points of departure in the United States where they are loaded onto ships or planes for the remainder of their journey.

**BC high technology exports
by destination and mode of transport - 2005**

	Mode of Transport	\$ millions	% of region	% of total high tech exports
United States	Land	329.8	67.9	46.9
	Sea	0.0	0.0	0.0
	Air	156.2	32.1	22.2
	<i>Total</i>	<i>486.0</i>	<i>100.0</i>	<i>69.0</i>
All other countries	Land	1.7	0.8	0.2
	Sea	15.3	7.0	2.2
	Air	200.9	92.2	28.5
	<i>Total</i>	<i>217.9</i>	<i>100.0</i>	<i>31.0</i>
Total	Land	331.5	47.1	47.1
	Sea	15.3	2.2	2.2
	Air	357.0	50.7	50.7
	<i>Total</i>	<i>703.9</i>	<i>100.0</i>	<i>100.0</i>

Imports of high technology goods increased in 2005

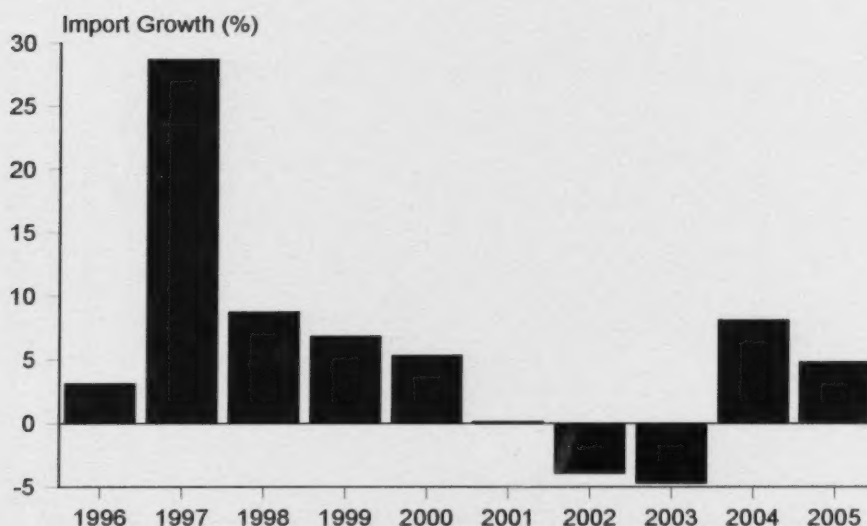
The value of high tech imports into BC climbed 4.8% in 2005

The value of imports of high technology goods into British Columbia grew for the second straight year, rising 4.8% in 2005. BC's high technology imports tend to follow a trend similar to high tech exports because a significant amount of high tech goods imported into the province are used as inputs into BC's own high technology manufacturing. As a result, when demand for domestically produced manufactured high tech goods is down, the demand for input goods imported into the province is also muted. This can particularly be seen over the last few years as imports were declining at the same time as exports and their subsequent rebound also followed the trend of exports.

The largest source of increased imports was the Pacific Rim, particularly Mainland China. While imports from the United States slipped 2.1% and high tech goods shipped to BC from the European Union fell 11.4%, shipments from the Pacific Rim climbed 11.4%, including a 30.9% surge in imports from China. Portable computers and cellular telephones were among the goods driving much of the increase in high tech goods entering the province from China, which suggests that at least some of the growth in imports was consumer-driven and not solely due to the demand created by the domestic high tech sector.

Imports of high technology products into British Columbia increased in 2005

Figure 10



As is the case with exports, the United States is the most significant origin of BC imports of high technology, although it is far less dominant as a source for imports than it is as a destination for exports. In 2005, just under 40% of imports of high technology products into British Columbia originated in the United States, amounting to \$1,851 million. Countries in the Pacific Rim were the source of just over a third of BC high tech imports (36%). Within the Pacific Rim, Mainland China was the leading origin of high tech imports into BC, shipping \$712 million worth of these goods to the province, or 15% of imports. This was good enough to rank China second as a source for high tech imports into BC, well ahead of third-ranked Mexico (\$382 million). In fact, China shipped more high tech products to BC than all of the European Union countries combined (\$411 million).

BC high technology imports by commodity group - 2005

	\$ millions	% change
Computers and Telecommunications	2,784.5	1.2
Life Sciences	496.4	0.6
Aerospace	488.3	33.1
Electronics	424.2	6.2
Opto-Electronics	186.7	47.6
Computer Integrated Manufacturing	183.0	-6.6
Biotechnology	40.6	7.2
Material Design	25.4	-1.9
Weapons and Nuclear	20.5	-48.1
Total	4,649.6	4.8

British Columbia imported over six and a half times the value of high tech goods than it exported in 2005. As with exports, computer and telecommunications goods are by far the largest category of high technology imports, comprising well over half (60%) of high tech imports into the province in 2005. The \$2.8 billion in imports of these goods alone was almost four times the value of all high tech exports. The value of imports of second-ranked life sciences commodities was less than a fifth that of computers and telecommunications goods, at \$496 million. Imports of aerospace products rebounded after three consecutive years of decline, surging 33.1% to \$488 million. Imports of opto-electronics experienced the largest increase, jumping 47.6% to an all-time high of \$187 million.

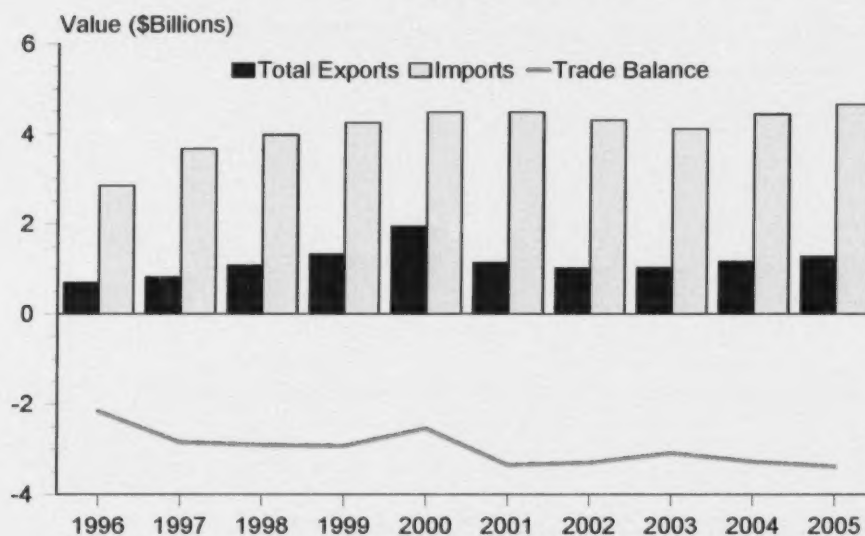
BC's high tech trade deficit deepened slightly in 2005

BC has a \$3.4 billion trade deficit in high tech goods

British Columbia imports substantially more high technology goods than it exports and, as a result, the province runs a trade deficit in these commodities. The faster growth in imports compared to exports meant that the trade deficit increased slightly in 2005, rising to just under \$3.4 billion. In other words, BC imported \$3.4 billion more in high tech goods than it exported in 2005.

Figure 11

BC's imports far more high tech goods than it exports



Approximately a third (\$1.1 billion) of BC's high tech trade deficit is with the United States. This is in stark contrast to commodity trade as a whole, where BC has a substantial trade surplus with the US. The second largest deficit in trade of high tech goods for British

Columbia is with China. At \$676 million, it represents about 20% of BC's high tech commodity trade deficit. The next largest deficit is with Mexico, at \$374 million, which is larger than the combined deficit with all countries of the European Union (\$277 million).

The trade deficit spans across all commodity groups. As one might expect, the largest deficits are for goods with the highest volumes of trade. The trade deficit for computers and telecommunications alone is well over three times the value of all BC high tech commodity exports combined.

**BC balance of trade in high technology goods
by commodity group - 2005**

	\$ millions
Weapons and Nuclear	-15.7
Material Design	-21.5
Biotechnology	-32.6
Electronics	-61.5
Computer Integrated Manufacturing	-68.9
Opto-Electronics	-147.1
Aerospace	-274.2
Life Sciences	-346.8
Computers and Telecommunications	-2,408.3
Total	-3,376.7

Robust growth for exports of high tech services in 2005

Service exports are generally more difficult to measure compared to exports of goods. Some service exports take place when BC-based professionals, such as engineers or software programmers, work for a period of time outside the province. Service exports also occur when, for example, an engineering firm produces a study in its BC office for an overseas client or when a software developer creates a new program that is "shipped" on-line to a client in another country.

The value of high tech service exports from BC surged 12.1% in 2005, largely due to strong growth in computer and related services, as well as motion picture production and post-production. Exports of computer and related services, which represent well over half of total high technology service exports, climbed 7.2%. Most of the increase was a result of a strong performance in the computer systems design and related industry. The motion picture industry rebounded from a slowdown in 2004 despite the continuing appreciation of the Canadian dollar against its American counterpart, with exports

**BC high tech service
exports jumped 12.1%
in 2005 to almost \$2.3
billion**

skyrocketing 71.8%. While a higher dollar may have driven away some American productions in 2004, a boost in available tax credits was likely the main reason for their return in 2005. The tax credits available to foreign film-makers shooting in British Columbia are attractive to budget conscious producers and have helped the province develop a world class motion picture industry.

The high technology sector in British Columbia exports far more services than goods. In 2005, the value of high tech service exports was over three times that of international shipments of high tech goods. This is in contrast to Canada as a whole, for which high tech commodity exports are almost two and a half times the value of exports of high technology services. Canada's high tech manufacturing is concentrated mostly in Quebec and Ontario and a large percentage of these goods are produced for export, which is one of the reasons for the greater emphasis on goods exports for Canada's high tech sector as opposed to the domination of service exports in British Columbia.

Countries such as India, China and Russia, which are increasingly attracting information technology (IT) jobs, are creating challenges for the high tech sector in BC and the rest of Canada, which makes it difficult to predict the direction that BC's high tech service exports will take in the future. Offshoring of IT services to these countries has become common as companies in Canada and the United States recognize the potential savings that can be realized due to the lower cost of labour in these emerging economies. The mobility of computer services makes it easy to contract work to anywhere in the world and this could seriously affect the level of high tech service exports in the years to come as companies in the US and elsewhere that currently import services from BC could switch to lower-cost providers in these and other nascent economies.

Although Canada is one of the top countries in the world in terms of attracting "offshore" service work, it may already have lost some ground to these developing competitors. However, Canada still has some advantages to offer, particularly in attracting offshore work from the United States and other economies looking for a foothold in the NAFTA market. A.T. Kearney's annual ranking of the most globalized countries in the world places Canada sixth and ranked the country second in terms of technological connectivity, behind only the United States.¹² While countries such as India and China are able to offer a low wage environment, they rank low on the globalization index, indicating that they do not have the same tech-

¹² A.T. Kearney, Inc., "The Globalization Index." *Foreign Policy* (November/December 2006) pp 74-81.

nological, economic and political access compared to countries such as Canada that rank near the top of the scale. Although Canada may be at a disadvantage compared to some of its competitors in terms of compensation costs, it still compares favourably to the United States and most Western European countries. Canada's low-risk environment, well-established infrastructure and world class education system are attractive qualities for a company looking for offshore locations for service work and often outweigh cost considerations. These attributes could help BC companies stay competitive for offshore work in high tech services, despite the challenges from emerging economies.

BC's High Technology Industry in Context

While it is useful to examine the high technology industry's importance relative to other industries within British Columbia and to look at trends and compare the industry's performance today to what it was a year ago or a decade earlier, one cannot really judge the size and scope of BC's high tech sector without comparing it to high tech in other jurisdictions.

BC ranks fourth in the country in high technology GDP

Ontario, the largest province in Canada with respect to population, also had the highest GDP for high technology, at \$38.4 billion in 2005. Quebec's high tech sector generated \$22.4 billion in output, ranking it second. For the third time in the last four years, Alberta outranked British Columbia as its high tech sector produced \$8.8 billion in GDP, compared to only \$8.7 billion for British Columbia. The output from BC's high tech sector comprised just over 10% of total Canadian high tech GDP in 2005.

**BC ranks fourth in
Canada in terms of GDP
generated by high tech**

The service sector is the source of the majority of high tech GDP in Canada. In 2005, 71% of Canadian high tech output was generated by the service sector, compared to 83% in British Columbia. Similar to BC, Alberta's high tech sector is predominantly driven by the services sector, with 90% of high tech GDP generated by service industries. In Ontario, service industries were also the principal source of high tech output, generating almost 70% of high tech GDP. In Quebec, the goods sector plays a much larger role compared to the other high tech provinces. In 2005, Quebec's manufacturing industries produced about 42% of the province's high tech output. Quebec's large aerospace industry is part of the reason for the higher dependence on manufacturing and significant production of pharmaceuticals is also a factor.

In terms of GDP growth, all four high tech provinces trailed the national average and British Columbia's 2.4% rise in GDP lagged behind the other three high tech provinces. Alberta's high tech GDP was only marginally higher than BC's, at 2.8%, while Quebec (+4.1%) and Ontario (+4.0%) saw stronger growth in high tech output.

High tech revenue growth in BC exceed the national average

As with GDP, each of the four top high tech provinces also saw rising high tech revenues in 2005. Quebec again led the way with a 3.5% increase, while British Columbia was the only other province

to exceed the national average of 1.6% with growth in revenue of 2.2%. Ontario (+0.9%) and Alberta (+0.6%) saw marginal growth in revenues. Despite four consecutive years of revenue expansion, British Columbia still ranks fourth among the high tech provinces. Although the province gained on Alberta in 2005, BC's \$14.2 billion in high tech revenue is still slightly lower than Alberta's \$14.9 billion.

BC experienced the largest rise in high tech employment

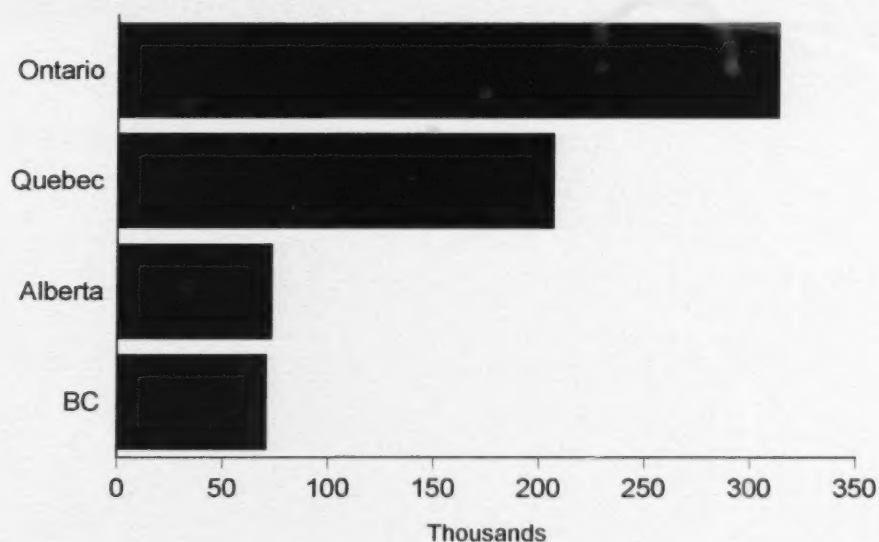
The 2.9% rise in high technology employment in British Columbia was the biggest increase in the country. Nationally, the number of high tech jobs edged up 1.1%. Other than BC, Quebec was the only other high tech province to add employment, with 0.9% more high tech jobs in that province. Alberta shed 1.4% of its high tech jobs in 2005, while Ontario saw high tech employment inch down 0.1%.

BC saw the largest jump in high tech employment in 2005

Despite the jump in employment in British Columbia and the job loss in Alberta, BC still ranks fourth among the high tech provinces in terms of employment. In the case of both BC and Alberta, their share of Canadian high tech employment is significantly lower than that of total Canadian employment. BC is home to just under 13% of all Canadian employees, but has slightly less than 10% of Canada's high tech workers, while Albertans have 11% of all Canadian jobs, but only 10% of those in high technology. Almost three-quarters of high technology employees reside in Ontario (43%) and Quebec (28%).

Figure 12

BC ranks fourth in high tech employment in Canada, 2005

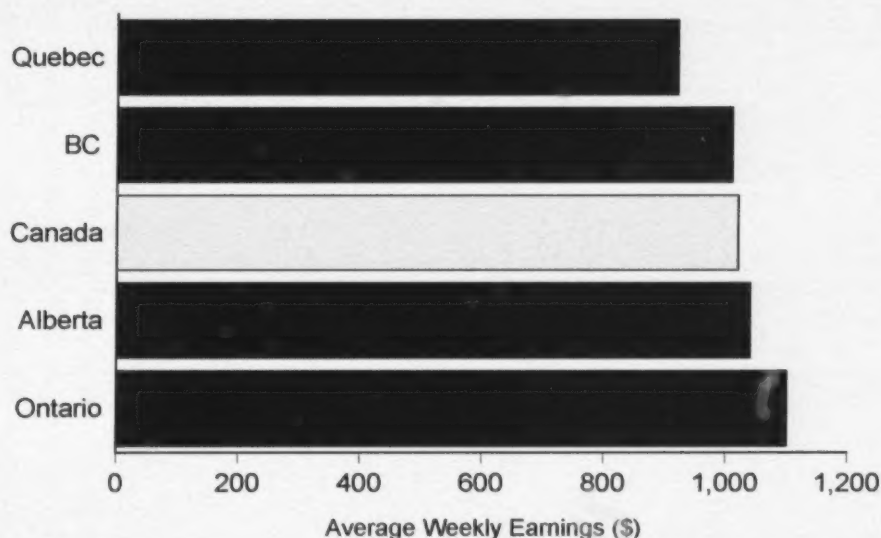


High tech earnings have increased across the country

Average weekly earnings in the high technology sector climbed in every province in 2005, averaging an increase of 2.9%. Wages in British Columbia rose at the slowest pace (+1.8%) among the four high tech provinces, while earnings in Quebec (+3.3%) experienced the most significant wage inflation. However, Quebec high tech workers still earned the least, on average, at \$950 per week. This is well below the national average of \$1,020 per week. Employees in the high tech sector in BC also earned slightly less than the Canadian average (\$1,010), while workers in Alberta were paid slightly higher than average (\$1,040). The highest paid high tech employees were in Ontario, with average weekly earnings of \$1,100 per week.

BC high tech workers earned less, on average, compared to most other high tech employees in the country in 2005

Figure 13



BC's ranks fourth in value of high tech commodity exports

Exports of high tech goods from British Columbia are relatively small compared to Canada's manufacturing hubs of Quebec and Ontario, which is not very surprising given the differences in the size of the economies, but BC high tech exports also lag those of Alberta. The province with the most high technology commodity exports is Quebec, which shipped \$13.6 billion worth of goods in 2005. High technology goods represented a fifth of Quebec's total international commodity exports. Quebec is home to a world-class aerospace industry, which is the main driver of its high technology sector and the reason for high

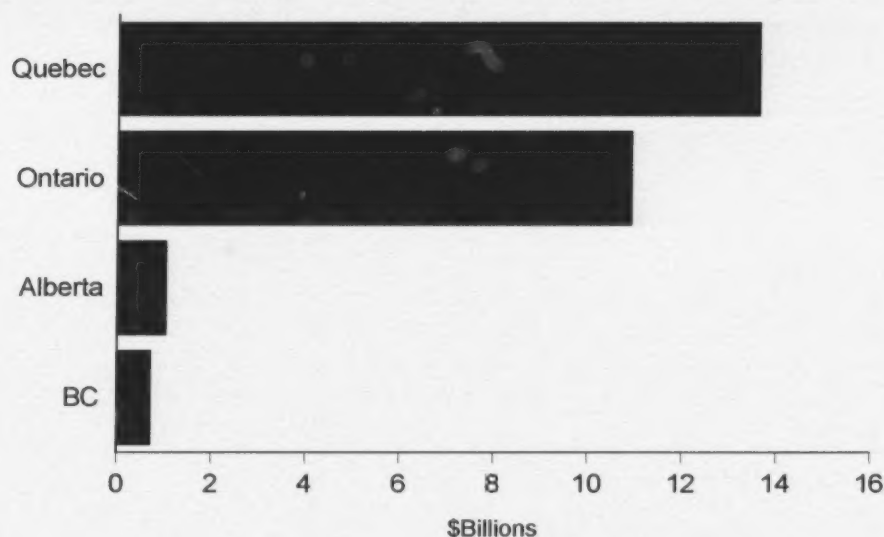
BC exports relatively few high tech goods compared to other provinces

technology's prominent profile in the province. Aerospace products comprised over two-thirds (69%) of Quebec's high tech exports in 2005.

With \$10.9 billion in high tech merchandise exports, Ontario trailed Quebec to rank second in the country. About 6% of Ontario's goods exports consisted of high technology goods, slightly less than the national average of just under 7%. By comparison, in British Columbia, high technology made up only 2% of total international commodity exports. Alberta exported more high technology goods than BC, but because the energy sector is the dominant exporter in the province, high tech was responsible for only slightly more than 1% of Alberta's merchandise exports.

Figure 14

BC's exports of high tech goods are relatively small, 2005



Ontario experienced by far the strongest growth in exports

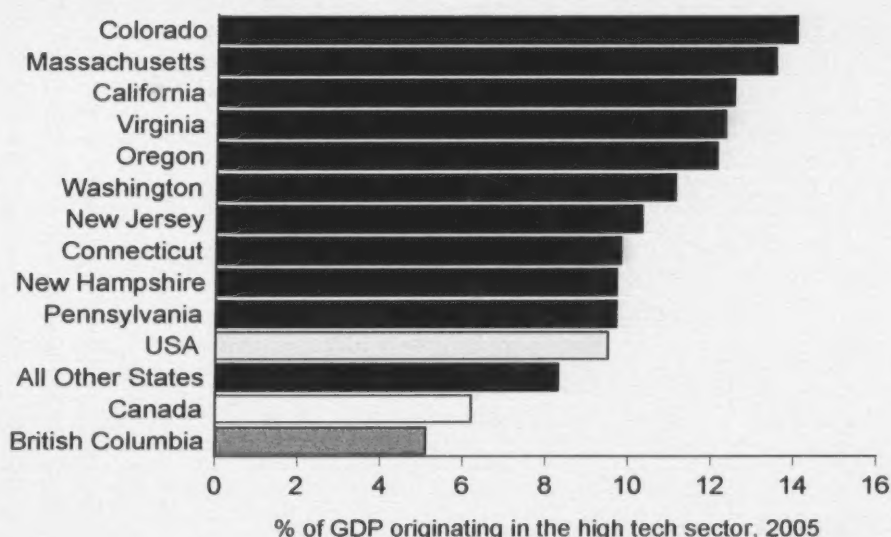
Ontario's high tech sector experienced by far the largest expansion in exports in 2005, posting a growth rate of 16.2%, well ahead of the 7.6% rise in value of exports for Canada as a whole. A 22.8% jump in shipments of computers and telecommunications products was responsible for much of the increase. Quebec's international shipments of high tech goods climbed 2.9%, slightly ahead of BC's 2.6% growth. In Alberta, there was a 9.4% drop in international shipments of high tech goods. This was the fifth straight year that Alberta's high tech exports have declined, mostly as a result of the downturn in the telecommunications sector and the subsequent drop in demand for those products.

High technology plays a far bigger role in the top high technology states in the United States than in BC

High technology industries generated just over 9% of GDP in the United States in 2005, or slightly more than \$1.4 trillion.¹³ By comparison, Canada's high tech output was less than 6% of the US total. Among the 16 states selected for study, Colorado was the most dependent on high technology with that sector accounting for 14% of the state's GDP.¹⁴ Colorado is home to a large telecommunications hub and has significant computer services and computer manufacturing industries.

High tech industries play a significant role in the economies of many US states

Figure 15



However, in terms of total size, California has far and away the largest high tech sector in the United States, generating \$244.6 billion in GDP in 2005, or 17% of the nation's total high tech GDP. High technology accounted for just over 12% of the state's GDP, driven by the computer industry in Silicon Valley, the large motion picture industry and a significant telecommunications presence.

¹³ All dollar figures for the United States have been restated in Canadian currency to allow direct comparison with comparable Canadian figures. An annual average of the Canada/US exchange rate was used to perform this conversion. All GDP figures for the US are in current dollars and comparisons with Canada and the provinces are made using current dollar figures.

¹⁴ The states selected were chosen either because the high tech sector represents a large proportion of the state's economy, or because the state comprises a large share of the nation's high technology sector.

The GDP from California's high tech sector alone was three times that of all high tech output in Canada as a whole.

Two of the other states sharing BC's time zone also have well-developed high tech sectors. Approximately 12% of Oregon's GDP was produced by its high tech sector in 2005, which may come as a surprise to those who see Oregon as mainly a producer of lumber, but high technology is prominent in the state's manufacturing industries. Portland is home to the factories of high tech giants such as Intel and Hewlett-Packard. In Washington State, high technology generates 11% of the state's GDP. The largest industry in the high tech sector in Washington is computer software publishing, led, of course, by Microsoft.

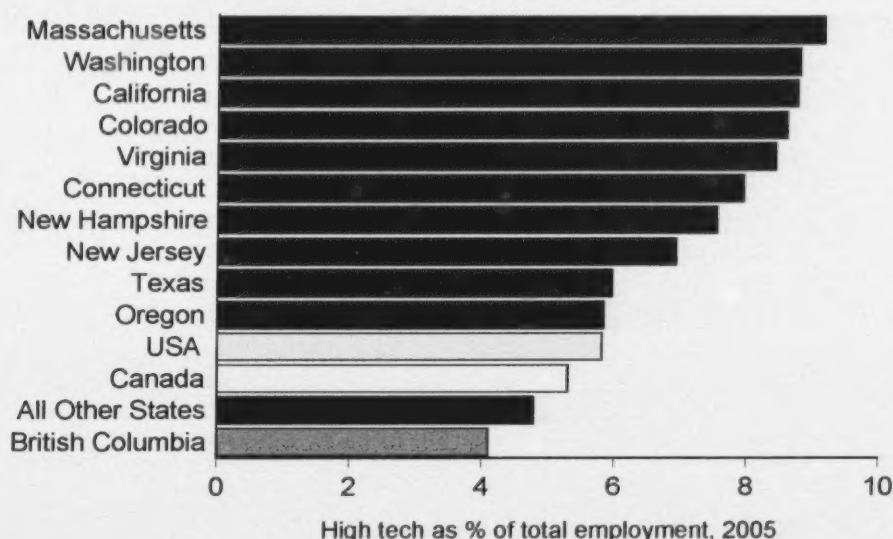
It is clear that high tech has a larger presence in the United States compared to Canada, where only 6% of GDP is generated by the high tech sector, or BC, where the comparable figure is 5%.

A relatively greater percentage of Americans are employed in high technology industries

Approximately 5.8% of American employees worked in high technology industries in 2005.¹⁵ The percentage of employees in high tech industries varied from a high of 9.2% for Massachusetts to a low of 2.5% in Wyoming.

Figure 16

Massachusetts has the largest share of employment comprised of high technology workers



¹⁵ The employment data used in this report comes from an employer survey so self-employed workers are excluded.

Canada's ratio of high tech to total employment is reasonably comparable to the overall figure for the United States, at 5.3%. At 4.1% of total employment, British Columbia's high tech sector ranks below at least 30 states in terms of importance of the sector as an employer. Of the 16 states studied, only Ohio, at 4.0%, ranks below British Columbia.

Total high technology employment in the United States in 2005 was 7.6 million, up 1.7% from a year earlier. California employed over 1.3 million high tech workers, or about 17% of the national total. Computer manufacturing and software services were the largest employers in the state. California's high tech employment was more than double that of second-ranked Texas, which had under 0.6 million employees in the sector in 2005.

Compared to Canada, manufacturing plays a far more significant role in the high technology sector in the United States. In 2005, over 34% of all high tech jobs in the United States were in manufacturing industries. Among the states studied, New Hampshire had the highest proportion of manufacturing jobs in the high tech sector, at almost 57%, while Virginia was at the low end with only 10% of high tech employment comprised of manufacturing jobs. In Canada, 28% of high technology employment was in manufacturing and in BC the ratio was even smaller at 19%.

Those Americans that work in the high technology sector tend to earn far higher wages compared to their Canadian peers. In 2005, the average weekly wage for high tech workers in the United States was \$1,697, ranging, among the states studied, from \$1,377 in Florida to \$2,093 in California. By comparison, high tech workers in Canada earned \$1,020, on average, and employees in British Columbia took in \$1,010 in an average week.

American high tech workers earn more, on average, than their Canadian counterparts

The United States exports and imports relatively more high tech goods compared to Canada

In 2005, the United States exported \$215.1 billion worth of high tech commodities, which represented about 22% of total US domestic exports. By comparison, in Canada less than 7% of the country's commodity exports consisted of high technology products. In British Columbia, slightly more than 2% of total exports were high tech goods. Quebec is the only province that has a comparable ratio to that of the United States as high technology accounted for just over 20% of Quebec's total domestic exports in 2005.

The discrepancy is not nearly as large for commodity imports as just under 16% of all imports into the US are high technology goods, compared to approximately 12% of imports into Canada.

Domestic exports of high technology goods from the United States (denominated in Canadian dollars) edged down 0.7% in 2005, the fourth time in the last five years that high tech exports have fallen. However, imports of high tech goods climbed 1.5% to \$314.9 billion. As recently as 1997, the United States had a surplus in trade of high tech goods of over \$45 billion, but strong growth in imports coupled with very little increase to exports has put American trade in high technology goods into a deficit position for the last four years. In 2005, the trade deficit stood at almost \$54 billion, a swing of almost \$99 billion in just eight years.¹⁶

High technology sector in British Columbia still emerging

Compared to other jurisdictions, particularly the high technology centres in the United States, British Columbia's high tech sector is still relatively small. However, the sector has been growing and is becoming a more integral part of the provincial economy. While the sector as a whole may not rank prominently compared to other high tech jurisdictions, BC is home to some high tech clusters, such as fuel cell development and motion picture production, that are world class and, in some cases, world leaders. Other sectors, such as biotechnology and research and development are also starting to attract attention in the province. In the years to come, the role of high technology in British Columbia will likely continue to grow in importance. Given the significance of high technology products in today's world and the combination of lucrative revenues and well-paid employment offered by the sector, there is little doubt that high technology will continue to attract attention in British Columbia and elsewhere.

¹⁶ Note that the balance of trade is calculated by taking the difference of total exports (including re-exports) and subtracting imports. The \$215.1 billion export figure for 2005 excludes re-exports, which were \$46.0 billion.

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Table 1. Gross Domestic Product (GDP) (Constant Dollar) at Basic Prices,¹ by Industry, 1997-2005

	1997 \$ million								
INDUSTRY	1997 [†]	1998 [†]	1999 [†]	2000 [†]	2001 [†]	2002 [†]	2003 [†]	2004 [†]	2005 [‡]
Manufacturing	743	818	1,076	1,917	1,696	1,288	1,409	1,564	1,522
Services	4,362	4,679	4,905	5,344	5,545	6,188	6,670	6,906	7,149
Motion picture production & post production	90	102	139	134	150	151	130	119	*
Telecommunications	2,408	2,430	2,662	2,874	2,788	3,183	*	*	*
Engineering services	1,008	971	872	864	919	878	865	886	882
Computer and related services	712	969	1,053	1,266	1,465	1,618	*	*	*
Other services	144	207	179	206	222	358	365	408	351
High Technology Sector Total	5,105	5,496	5,980	7,261	7,241	7,476	8,079	8,470	8,671
BC Industrial Aggregate	104,554	105,827	109,008	113,919	115,139	118,806	121,769	126,791	131,139
	% change from previous year								
INDUSTRY	1998 [†]	1999 [†]	2000 [†]	2001 [†]	2002 [†]	2003 [†]	2004 [†]	2005 [‡]	
Manufacturing	10.1	31.5	78.2	-11.5	-24.1	9.4	11.0	-2.7	
Services	7.3	4.8	9.0	3.8	11.6	7.8	3.5	3.5	
Motion picture production & post production	13.7	35.4	-3.4	12.2	0.3	-13.7	-8.4	*	
Telecommunications	0.9	9.5	8.0	-3.0	14.2	*	*	*	
Engineering services	-3.7	-10.1	-0.9	6.4	-4.4	-1.5	2.3	-0.4	
Computer and related services	36.1	8.7	20.2	15.6	10.5	*	*	*	
Other services	43.9	-13.5	14.9	8.1	61.0	2.1	11.8	-14.1	
High Technology Sector Total	7.7	8.8	21.4	-0.3	3.2	8.1	4.8	2.4	
BC Industrial Aggregate	1.2	3.0	4.5	1.1	3.2	2.5	4.1	3.4	

1. Industry-based GDP data are now reported at basic prices. Previously a "factor cost" method of calculation was used. The difference between the basic price and factor cost concepts is that the factor cost estimate includes all subsidies and excludes all indirect taxes.

* Data has been suppressed due to confidentiality requirements.

[†] Revised

[‡] Preliminary

Source: BC Stats and Statistics Canada

Table 2. Gross Domestic Product (GDP) (Current Dollar) at Basic Prices,¹ by Industry, 1997-2005

INDUSTRY	\$ million								
	1997 ^r	1998 ^r	1999 ^r	2000 ^r	2001 ^r	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Manufacturing	743	734	920	1,254	1,096	908	919	896	869
Services	4,362	4,694	4,615	4,989	5,181	5,792	6,370	6,687	6,966
Motion picture production & post production	90	118	163	168	186	200	178	120	*
Telecommunications	2,408	2,390	2,394	2,482	2,401	2,728	*	*	*
Engineering services	1,008	1,008	837	884	964	943	940	972	992
Computer and related services	712	964	1,043	1,232	1,370	1,471	*	*	*
Other services	144	214	178	224	261	450	471	534	476
High Technology Sector Total	5,105	5,428	5,534	6,244	6,277	6,700	7,289	7,583	7,835
BC Industrial Aggregate	104,554	105,907	110,806	120,756	122,773	126,761	133,452	144,433	154,880
High Technology as a % of Total	4.9	5.1	5.0	5.2	5.1	5.3	5.5	5.2	5.1

INDUSTRY	% change from previous year							
	1998 ^r	1999 ^r	2000 ^r	2001 ^r	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Manufacturing	-1.1	25.3	36.4	-12.6	-17.2	1.3	-2.5	-3.0
Services	7.6	-1.7	8.1	3.8	11.8	10.0	5.0	4.2
Motion picture production & post production	30.4	38.9	2.8	11.0	7.4	-11.1	-32.3	*
Telecommunications	-0.8	0.2	3.6	-3.3	13.6	*	*	*
Engineering services	0.0	-17.0	5.6	9.0	-2.1	-0.3	3.4	2.1
Computer and related services	35.4	8.1	18.2	11.1	7.4	*	*	*
Other services	49.0	-16.9	26.0	16.5	72.5	4.6	13.5	-10.9
High Technology Sector Total	6.3	2.0	12.8	0.5	6.7	8.8	4.0	3.3
BC Industrial Aggregate	1.3	4.6	9.0	1.7	3.2	5.3	8.2	7.2

1. Industry-based GDP data are now reported at basic prices. Previously a "factor cost" method of calculation was used. The difference between the basic price and factor cost concepts is that the factor cost estimate includes all subsidies and excludes all indirect taxes.

* Data has been suppressed due to confidentiality requirements.

^r Revised

^p Preliminary

Source: BC Stats and Statistics Canada

Table 3. Gross Domestic Product (GDP) at basic prices,¹ Selected Activities, 1997-2005

	Chained (1997 \$ million)								
	1997	1998	1999	2000	2001	2002	2003	2004	2005
Goods-producing industries	27,806	27,199	28,503	30,632	30,038	30,967	31,575	33,217	34,327
Agriculture, forestry, fishing and hunting	4,779	4,692	4,536	4,470	4,588	4,542	4,772	5,240	5,331
Crop and animal production	907	864	930	927	1,084	1,006	1,063	1,072	1,084
Forestry and logging	3,185	3,203	3,026	2,863	2,872	2,944	3,071	3,645	3,760
Fishing, hunting and trapping	201	131	101	115	95	115	118	114	106
Support activities for agriculture and forestry	486	497	476	550	511	460	498	458	456
Mining, oil and gas extraction	2,646	2,804	2,808	2,821	3,586	3,697	3,534	3,526	3,537
Utilities	2,468	2,534	2,576	2,591	2,024	2,403	2,408	2,368	2,587
Construction	6,434	5,932	5,718	5,635	5,854	6,153	6,686	7,557	7,956
Manufacturing	11,479	11,228	12,809	14,954	13,634	13,654	13,751	14,241	14,674
Food manufacturing	1,016	1,042	1,129	1,257	1,423	1,324	1,250	1,278	1,437
Wood product manufacturing	3,634	3,579	4,023	4,437	3,642	4,222	4,143	4,579	4,722
Pulp and paper manufacturing	1,599	1,334	1,887	1,832	1,538	1,639	1,594	1,603	1,550
Primary and fabricated metal manufacturing	1,195	*	*	1,607	*	1,403	1,429	1,588	1,684
Computer and electronic product manufacturing	415	476	742	1,323	1,062	734	776	826	847
Service-producing industries	76,748	78,636	80,518	83,343	85,131	87,937	90,218	93,613	96,851
Wholesale trade	4,932	5,329	5,368	5,539	5,628	5,940	6,196	6,648	7,157
Retail trade	6,050	6,236	6,370	6,707	6,968	7,155	7,369	7,748	8,086
Transportation and warehousing	6,590	6,679	6,956	7,458	7,344	7,413	7,579	8,148	8,578
Information and cultural services	3,618	3,827	4,046	4,287	4,389	4,986	5,435	5,591	5,841
Finance, insurance, real estate, leasing, etc.	23,606	23,903	24,630	25,055	25,756	26,765	27,410	28,631	29,868
Professional, scientific and technical services	4,012	4,485	4,405	4,716	4,820	4,937	5,063	5,178	5,301
Administration and support, waste mgmt.	2,012	2,047	2,041	1,977	2,067	2,190	2,213	2,319	2,435
Education	5,406	5,588	5,753	5,887	5,978	6,021	6,099	6,164	6,212
Health care and social assistance	7,224	7,269	7,340	7,719	7,889	7,933	8,090	8,192	8,239
Arts, entertainment and recreation	1,128	1,124	1,213	1,224	1,282	1,307	1,327	1,330	1,355
Accommodation and food services	3,594	3,563	3,543	3,630	3,611	3,653	3,703	3,801	3,839
Other services	2,812	2,779	2,847	3,010	3,235	3,383	3,502	3,586	3,626
Public administration	5,764	5,821	6,050	6,236	6,354	6,546	6,615	6,690	6,797
GDP at basic prices	104,554	105,827	109,008	113,919	115,139	118,806	121,769	126,791	131,139
	% change from previous year								
	1998	1999	2000	2001	2002	2003	2004	2005	
Goods-producing industries	-2.2	4.8	7.5	-1.9	3.1	2.0	5.2	3.3	
Agriculture, forestry, fishing and hunting	-1.8	-3.3	-1.5	2.6	-1.0	5.0	9.8	1.7	
Crop and animal production	-4.8	7.7	-0.4	17.0	-7.3	5.7	0.8	1.2	
Forestry and logging	0.6	-5.5	-5.4	0.3	2.5	4.3	18.7	3.1	
Fishing, hunting and trapping	-35.0	-23.0	14.5	-17.5	21.0	2.7	-3.1	-6.8	
Support activities for agriculture and forestry	2.1	-4.1	15.5	-7.0	-10.0	8.2	-7.9	-0.4	
Mining, oil and gas extraction	6.0	0.2	0.5	27.1	3.1	-4.4	-0.2	0.3	
Utilities	2.6	1.7	0.6	-21.9	18.7	0.2	-1.7	9.2	
Construction	-7.8	-3.6	-1.4	3.9	5.1	8.7	13.0	5.3	
Manufacturing	-2.2	14.1	16.7	-8.8	0.1	0.7	3.6	3.0	
Food manufacturing	2.6	8.3	11.3	13.2	-7.0	-5.6	2.2	12.4	
Wood product manufacturing	-1.5	12.4	10.3	-17.9	15.9	-1.9	10.5	3.1	
Pulp and paper manufacturing	-16.5	41.4	-2.9	-16.0	6.6	-2.7	0.6	-3.3	
Primary and fabricated metal manufacturing	*	*	*	*	*	1.8	11.2	6.0	
Computer and electronic product manufacturing	14.6	55.9	78.3	-19.7	-30.9	5.7	6.4	2.5	
Service-producing industries	2.5	2.4	3.5	2.1	3.3	2.6	3.8	3.5	
Wholesale trade	8.0	0.7	3.2	1.6	5.5	4.3	7.3	7.7	
Retail trade	3.1	2.1	5.3	3.9	2.7	3.0	5.1	4.4	
Transportation and warehousing	1.4	4.1	7.2	-1.5	0.9	2.2	7.5	5.3	
Information and cultural services	5.8	5.7	5.9	2.4	13.6	9.0	2.9	4.5	
Finance, insurance, real estate, leasing, etc.	1.3	3.0	1.7	2.8	3.9	2.4	4.5	4.3	
Professional, scientific and technical services	11.8	-1.8	7.0	2.2	2.4	2.5	2.3	2.4	
Administration and support, waste mgmt.	1.7	-0.3	-3.1	4.5	6.0	1.0	4.8	5.0	
Education	3.4	2.9	2.3	1.6	0.7	1.3	1.1	0.8	
Health care and social assistance	0.6	1.0	5.2	2.2	0.6	2.0	1.3	0.6	
Arts, entertainment and recreation	-0.4	7.9	0.9	4.8	1.9	1.6	0.2	1.9	
Accommodation and food services	-0.9	-0.6	2.5	-0.5	1.2	1.4	2.6	1.0	
Other services	-1.2	2.4	5.7	7.5	4.6	3.5	2.4	1.1	
Public administration	1.0	3.9	3.1	1.9	3.0	1.1	1.1	1.6	
GDP at basic prices	1.2	3.0	4.5	1.1	3.2	2.5	4.1	3.4	

1. Industry-based GDP data are now reported at basic prices. Previously a "factor cost" method of calculation was used. The difference between the basic price and factor cost concepts is that the factor cost estimate includes all subsidies and excludes all indirect taxes.

* Data has been suppressed due to confidentiality requirements.

Source: Statistics Canada

Table 4. High Technology GDP (Constant Dollar) at Basic Prices,¹ by Province, 1997-2005

		1997 \$ million								
Province		1997 ^r	1998 ^r	1999 ^r	2000 ^r	2001 ^r	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Canada	Manufacturing	18,018	19,230	24,421	30,543	24,730	22,223	23,272	23,672	24,546
	Services	32,142	36,289	41,982	46,287	50,384	53,927	56,145	58,363	60,458
	Total	50,160	55,519	66,402	76,830	75,114	76,150	79,417	82,034	85,003
British Columbia	Manufacturing	743	818	1,076	1,917	1,696	1,288	1,409	1,564	1,522
	Services	4,362	4,679	4,905	5,344	5,545	6,188	6,670	6,906	7,149
	Total	5,105	5,496	5,980	7,261	7,241	7,476	8,079	8,470	8,671
Alberta	Manufacturing	910	1,041	1,052	1,211	894	851	868	980	887
	Services	4,135	4,960	5,298	5,878	6,331	6,843	7,163	7,578	7,912
	Total	5,045	6,001	6,351	7,090	7,225	7,694	8,031	8,557	8,799
Ontario	Manufacturing	8,765	9,544	11,528	13,624	10,650	10,525	11,100	11,095	11,690
	Services	13,044	14,719	18,367	20,946	22,992	24,128	24,968	25,873	26,749
	Total	21,809	24,263	29,895	34,570	33,642	34,653	36,068	36,969	38,439
Quebec	Manufacturing	6,679	6,879	9,666	11,754	10,176	8,428	8,747	8,986	9,453
	Services	7,127	8,056	9,270	9,729	10,714	11,483	12,026	12,587	12,994
	Total	13,806	14,936	18,936	21,483	20,890	19,912	20,773	21,573	22,448

		% change from previous year							
Province		1998 ^r	1999 ^r	2000 ^r	2001 ^r	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Canada	Manufacturing	6.7	27.0	25.1	-19.0	-10.1	4.7	1.7	3.7
	Services	12.9	15.7	10.3	8.9	7.0	4.1	3.9	3.6
	Total	10.7	19.6	15.7	-2.2	1.4	4.3	3.3	3.6
British Columbia	Manufacturing	10.1	31.5	78.2	-11.5	-24.1	9.4	11.0	-2.7
	Services	7.3	4.8	9.0	3.8	11.6	7.8	3.5	3.5
	Total	7.7	8.8	21.4	-0.3	3.2	8.1	4.8	2.4
Alberta	Manufacturing	14.4	1.1	15.1	-26.2	-4.8	2.0	12.9	-9.5
	Services	20.0	6.8	10.9	7.7	8.1	4.7	5.8	4.4
	Total	18.9	5.8	11.6	1.9	6.5	4.4	6.6	2.8
Ontario	Manufacturing	8.9	20.8	18.2	-21.8	-1.2	5.5	0.0	5.4
	Services	12.8	24.8	14.0	9.8	4.9	3.5	3.6	3.4
	Total	11.3	23.2	15.6	-2.7	3.0	4.1	2.5	4.0
Quebec	Manufacturing	3.0	40.5	21.6	-13.4	-17.2	3.8	2.7	5.2
	Services	13.0	15.1	5.0	10.1	7.2	4.7	4.7	3.2
	Total	8.2	26.8	13.5	-2.8	-4.7	4.3	3.8	4.1

1. Industry-based GDP data are now reported at basic prices. Previously a "factor cost" method of calculation was used. The difference between the basic price and factor cost concepts is that the factor cost estimate includes all subsidies and excludes all indirect taxes.

^r Revised

^p Preliminary

Source: BC Stats

Table 5. High Technology GDP (Current Dollar) at Basic Prices,¹ by Province and the USA, 1997-2005

		Cdn \$ million								
Province		1997 ^r	1998 ^r	1999 ^r	2000 ^r	2001 ^r	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Canada	Manufacturing	18,018	18,109	22,750	26,066	21,973	20,393	21,346	20,534	20,407
	Services	32,142	36,493	40,118	43,561	46,974	50,468	53,453	57,341	59,238
	Total	50,160	54,602	62,867	69,627	68,947	70,861	74,798	77,875	79,645
British Columbia	Manufacturing	743	734	920	1,254	1,096	908	919	896	869
	Services	4,362	4,694	4,615	4,989	5,181	5,792	6,370	6,687	6,966
	Total	5,105	5,428	5,534	6,244	6,277	6,700	7,289	7,583	7,835
Alberta	Manufacturing	910	1,069	1,135	1,549	946	885	905	903	829
	Services	4,135	4,980	5,213	5,569	6,135	6,489	7,059	7,620	7,990
	Total	5,045	6,049	6,348	7,118	7,081	7,374	7,964	8,523	8,819
Ontario	Manufacturing	8,765	9,064	9,595	10,342	9,281	9,193	9,781	9,352	9,281
	Services	13,044	14,792	17,542	19,810	21,471	22,673	23,756	26,074	26,716
	Total	21,809	23,857	27,136	30,152	30,752	31,866	33,536	35,426	35,996
Quebec	Manufacturing	6,679	6,334	9,997	11,374	9,689	8,426	8,662	8,579	8,665
	Services	7,127	8,131	8,818	9,135	9,891	10,757	11,180	11,824	12,201
	Total	13,806	14,465	18,815	20,509	19,580	19,183	19,842	20,403	20,867
United States ^c	Manufacturing	413,990	490,230	493,829	531,387	500,297	492,454	449,129	424,797	423,038
	Services	669,810	808,427	912,410	991,005	1,078,322	1,111,408	1,008,725	1,028,313	999,725
	Total	1,083,800	1,298,657	1,406,239	1,522,392	1,578,618	1,603,861	1,457,854	1,453,110	1,422,763

		% change from previous year							
Province		1998 ^r	1999 ^r	2000 ^r	2001 ^r	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Canada	Manufacturing	0.5	25.6	14.6	-15.7	-7.2	4.7	-3.8	-0.6
	Services	13.5	9.9	8.6	7.8	7.4	5.9	7.3	3.3
	Total	8.9	15.1	10.8	-1.0	2.8	5.6	4.1	2.3
British Columbia	Manufacturing	-1.1	25.3	36.4	-12.6	-17.2	1.3	-2.5	-3.0
	Services	7.6	-1.7	8.1	3.8	11.8	10.0	5.0	4.2
	Total	6.3	2.0	12.8	0.5	6.7	8.8	4.0	3.3
Alberta	Manufacturing	17.5	6.1	36.5	-39.0	-6.5	2.3	-0.2	-8.2
	Services	20.4	4.7	6.8	10.2	5.8	8.8	7.9	4.9
	Total	19.9	4.9	12.1	-0.5	4.1	8.0	7.0	3.5
Ontario	Manufacturing	3.4	5.9	7.8	-10.3	-0.9	6.4	-4.4	-0.8
	Services	13.4	18.6	12.9	8.4	5.6	4.8	9.8	2.5
	Total	9.4	13.7	11.1	2.0	3.6	5.2	5.6	1.6
Quebec	Manufacturing	-5.2	57.8	13.8	-14.8	-13.0	2.8	-1.0	1.0
	Services	14.1	8.5	3.6	8.3	8.8	3.9	5.8	3.2
	Total	4.8	30.1	9.0	-4.5	-2.0	3.4	2.8	2.3
United States	Manufacturing	18.4	0.7	7.6	-5.9	-1.6	-8.8	-5.4	-0.4
	Services	20.7	12.9	8.6	8.8	3.1	-9.2	1.9	-2.8
	Total	19.8	8.3	8.3	3.7	1.6	-9.1	-0.3	-2.1

1. Industry-based GDP data are now reported at basic prices. Previously a "factor cost" method of calculation was used. The difference between the basic price and factor cost concepts is that the factor cost estimate includes all subsidies and excludes all indirect taxes.

2. Figures for the United States were converted from U.S. dollar data using an average annual exchange rate.

^r Revised

^p Preliminary

Source: BC Stats

Table 6. High Technology GDP (current dollar) for Selected States, 1997-2005

	Cdn \$ million ¹								
Province	1997	1998	1999	2000	2001	2002	2003	2004	2005 ^P
USA	1,083,800	1,298,657	1,406,239	1,522,392	1,578,618	1,603,861	1,457,854	1,453,110	1,422,763
California	179,003	217,078	260,426	300,156	284,241	271,286	248,229	251,709	244,570
Texas	89,018	107,904	107,144	113,886	118,570	120,890	103,321	108,302	108,711
New York	62,318	77,062	80,223	86,788	93,679	99,855	92,586	94,123	91,010
Pennsylvania	46,336	53,126	56,437	57,240	66,898	69,783	62,159	58,241	57,240
New Jersey	47,340	53,136	57,418	58,562	66,647	65,720	58,300	54,430	53,685
Massachusetts	38,902	46,115	50,388	61,069	61,655	62,986	58,017	54,180	53,374
Virginia	33,680	41,899	44,234	49,402	54,610	55,162	52,483	54,488	52,524
Florida	39,047	45,004	47,745	51,795	55,326	58,133	52,457	55,291	52,250
Illinois	40,394	45,574	48,800	49,773	52,166	53,705	47,047	47,179	44,554
Colorado	27,029	32,917	37,973	44,386	43,956	44,804	39,099	37,935	36,735
Washington	26,642	36,926	50,095	47,734	46,902	46,118	38,971	37,331	35,914
Ohio	28,732	33,941	36,116	37,021	38,336	37,213	33,346	33,608	33,489
Michigan	26,428	30,519	33,367	34,537	36,219	37,478	32,839	29,140	29,405
Connecticut	20,175	24,125	23,881	26,240	29,496	27,857	23,321	24,017	23,077
Oregon	16,758	20,316	18,441	24,544	19,405	20,124	18,779	24,619	21,193
New Hampshire	7,711	8,700	7,047	7,928	7,038	7,528	6,673	6,616	6,471
Other States	354,286	424,315	446,504	471,333	503,475	525,218	490,227	481,900	478,562

	% change from previous year							
Province	1998	1999	2000	2001	2002	2003	2004	2005 ^P
USA	19.8	8.3	8.3	3.7	1.6	-9.1	-0.3	-2.1
California	21.3	20.0	15.3	-5.3	-4.6	-8.5	1.4	-2.8
Texas	21.2	-0.7	6.3	4.1	2.0	-14.5	4.8	0.4
New York	23.7	4.1	8.2	7.9	6.6	-7.3	1.7	-3.3
Pennsylvania	14.7	6.2	1.4	16.9	4.3	-10.9	-6.3	-1.7
New Jersey	12.2	8.1	2.0	13.8	-1.4	-11.3	-6.6	-1.4
Massachusetts	18.5	9.3	21.2	1.0	2.2	-7.9	-6.6	-1.5
Virginia	24.4	5.6	11.7	10.5	1.0	-4.9	3.8	-3.6
Florida	15.3	6.1	8.5	6.8	5.1	-9.8	5.4	-5.5
Illinois	12.8	7.1	2.0	4.8	3.0	-12.4	0.3	-5.6
Colorado	21.8	15.4	16.9	-1.0	1.9	-12.7	-3.0	-3.2
Washington	38.6	35.7	-4.7	-1.7	-1.7	-15.5	-4.2	-3.8
Ohio	18.1	6.4	2.5	3.6	-2.9	-10.4	0.8	-0.4
Michigan	15.5	9.3	3.5	4.9	3.5	-12.4	-11.3	0.9
Connecticut	19.6	-1.0	9.9	12.4	-5.6	-16.3	3.0	-3.9
Oregon	21.2	-9.2	33.1	-20.9	3.7	-6.7	31.1	-13.9
New Hampshire	12.8	-19.0	12.5	-11.2	7.0	-11.4	-0.9	-2.2
Other States	19.8	5.2	5.6	6.8	4.3	-6.7	-1.7	-0.7

1. Figures converted from U.S. dollar data using an average annual exchange rate.

^P Preliminary

Source: BC Stats

Table 7. High Technology Sector Revenues,¹ 1997-2005

	\$ million								
INDUSTRY	1997 ^r	1998 ^r	1999 ^r	2000 ^r	2001 ^r	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Manufacturing	1,763	1,845	2,267	2,819	2,524	2,122	2,241	2,571	2,356
Services	7,241	7,932	8,545	8,951	8,936	10,022	10,866	11,342	11,863
Motion picture production & post production	133	206	477	401	413	484	652	442	534
Telecommunications	3,797	4,300	4,379	4,541	4,110	4,556	4,908	4,771	4,912
Engineering services	1,678	1,281	1,154	1,142	1,439	1,415	1,513	1,565	1,598
Computer and related services	1,355	1,840	2,212	2,482	2,535	2,637	2,902	3,553	3,922
Other services	278	305	322	385	439	931	890	1,012	897
High Technology Sector Total	9,004	9,777	10,812	11,770	11,460	12,144	13,107	13,913	14,219
% change from previous year									
INDUSTRY	1998 ^r	1999 ^r	2000 ^r	2001 ^r	2002 ^r	2003 ^r	2004 ^r	2005 ^p	
Manufacturing	4.7	22.9	24.4	-10.4	-15.9	5.6	14.7	-8.4	
Services	9.5	7.7	4.8	-0.2	12.2	8.4	4.4	4.6	
Motion picture production & post production	55.2	131.1	-15.9	2.9	17.3	34.8	-32.3	20.9	
Telecommunications	13.2	1.8	3.7	-9.5	10.8	7.7	-2.8	2.9	
Engineering services	-23.7	-9.9	-1.1	26.0	-1.7	6.9	3.4	2.1	
Computer and related services	35.7	20.2	12.2	2.1	4.0	10.1	22.4	10.4	
Other services	9.6	5.7	19.5	13.9	112.2	-4.4	13.7	-11.3	
High Technology Sector Total	8.6	10.6	8.9	-2.6	6.0	7.9	6.1	2.2	

1. Note that revenues for the service industries are collected on a company rather than an establishment basis. As a result, revenues for those industries represent the entire Canadian earnings of companies headquartered in BC. Totals are calculated using unrounded data.

^r Revised

^p Preliminary

Source: BC Stats and Statistics Canada

Table 8. High Technology Sector Revenues, by Province and the USA, 1997-2005

Cdn \$ million									
Province	1997 ^r	1998 ^r	1999 ^r	2000 ^r	2001 ^r	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Canada	97,262	112,218	125,740	147,229	145,514	142,738	142,545	149,303	151,689
British Columbia	9,004	9,777	10,812	11,770	11,460	12,144	13,107	13,913	14,219
Alberta	9,154	10,831	11,024	13,113	14,216	13,417	13,791	14,807	14,903
Ontario	43,848	50,664	55,972	65,630	66,565	64,439	62,722	67,283	67,868
Quebec	28,241	32,570	39,178	47,197	43,362	42,582	42,200	42,522	44,025
United States ¹	2,020,764	2,378,754	2,577,345	2,801,715	2,886,594	2,832,634	2,535,446	2,471,259	2,416,621
% change from previous year									
Province	1998 ^r	1999 ^r	2000 ^r	2001 ^r	2002 ^r	2003 ^r	2004 ^r	2005 ^p	
Canada	15.4	12.0	17.1	-1.2	-1.9	-0.1	4.7	1.6	
British Columbia	8.6	10.6	8.9	-2.6	6.0	7.9	6.1	2.2	
Alberta	18.3	1.8	19.0	8.4	-5.6	2.8	7.4	0.6	
Ontario	15.5	10.5	17.3	1.4	-3.2	-2.7	7.3	0.9	
Quebec	15.3	20.3	20.5	-8.1	-1.8	-0.9	0.8	3.5	
United States	17.7	8.3	8.7	3.0	-1.9	-10.5	-2.5	-2.2	

1. Figures for the United States were converted from U.S. dollar data using an average annual exchange rate.

^r Revised

^p Preliminary

Source: BC Stats

Table 9. High Technology Sector Revenues for Selected States, 1997-2005

	Cdn \$ million ¹								
Province	1997	1998	1999	2000	2001	2002	2003	2004	2005 ^p
USA	2,020,764	2,378,754	2,577,345	2,801,715	2,886,594	2,832,634	2,535,446	2,471,259	2,416,621
California	375,641	452,207	494,700	534,064	548,364	507,071	453,461	432,174	424,676
Texas	163,564	181,858	211,106	240,246	233,326	229,752	206,706	203,231	201,454
New York	116,912	137,326	144,536	160,186	161,783	161,980	147,435	146,218	142,361
Pennsylvania	79,239	91,904	98,223	110,828	118,854	119,923	105,008	101,117	98,979
Massachusetts	80,867	94,794	102,473	112,198	114,985	115,757	104,432	98,404	95,915
New Jersey	71,651	83,778	96,176	102,284	114,537	118,547	104,027	97,309	94,058
Florida	72,615	83,907	93,857	103,037	107,840	109,948	98,556	97,631	92,958
Virginia	63,781	79,270	89,685	101,381	109,667	109,151	96,535	97,319	89,135
Illinois	80,374	91,447	95,688	106,894	103,103	97,515	86,690	87,102	80,236
Washington	40,672	56,146	66,195	71,683	81,921	87,604	78,119	76,289	72,072
Ohio	57,109	67,974	71,118	78,770	79,829	74,098	65,056	64,010	63,756
Colorado	48,165	54,937	60,643	66,287	68,033	70,258	61,534	58,456	56,219
Michigan	41,738	47,449	53,419	57,361	56,883	55,361	49,353	45,709	44,458
Connecticut	38,447	43,602	43,291	46,600	52,323	49,091	41,451	40,144	38,996
Oregon	31,360	36,562	33,651	38,615	33,790	34,956	30,454	42,116	37,848
New Hampshire	16,020	19,133	16,292	17,379	15,653	14,396	13,913	12,253	11,614
Other States	642,608	756,458	806,290	853,902	885,701	877,226	792,716	771,777	771,887

	% change from previous year							
Province	1998	1999	2000	2001	2002	2003	2004	2005 ^p
USA	17.7	8.3	8.7	3.0	-1.9	-10.5	-2.5	-2.2
California	20.4	9.4	8.0	2.7	-7.5	-10.6	-4.7	-1.7
Texas	11.2	16.1	13.8	-2.9	-1.5	-10.0	-1.7	-0.9
New York	17.5	5.2	10.8	1.0	0.1	-9.0	-0.8	-2.6
Pennsylvania	16.0	6.9	12.8	7.2	0.9	-12.4	-3.7	-2.1
Massachusetts	17.2	8.1	9.5	2.5	0.7	-9.8	-5.8	-2.5
New Jersey	16.9	14.8	6.4	12.0	3.5	-12.2	-6.5	-3.3
Florida	15.6	11.9	9.8	4.7	2.0	-10.4	-0.9	-4.8
Virginia	24.3	13.1	13.0	8.2	-0.5	-11.6	0.8	-8.4
Illinois	13.8	4.6	11.7	-3.5	-5.4	-11.1	0.5	-7.9
Washington	38.0	17.9	8.3	14.3	6.9	-10.8	-2.3	-5.5
Ohio	19.0	4.6	10.8	1.3	-7.2	-12.2	-1.6	-0.4
Colorado	14.1	10.4	9.3	2.6	3.3	-12.4	-5.0	-3.8
Michigan	13.7	12.6	7.4	-0.8	-2.7	-10.9	-7.4	-2.7
Connecticut	13.4	-0.7	7.6	12.3	-6.2	-15.6	-3.2	-2.9
Oregon	16.6	-8.0	14.8	-12.5	3.4	-12.9	38.3	-10.1
New Hampshire	19.4	-14.8	6.7	-9.9	-8.0	-3.4	-11.9	-5.2
Other States	17.7	6.6	5.9	3.7	-1.0	-9.6	-2.6	0.0

1. Figures converted from U.S. dollar data using an average annual exchange rate.

^p Preliminary

Source: BC Stats

Table 10. High Technology Sector Employment,¹ 1997-2005

INDUSTRY	1997 ^r	1998 ^r	1999 ^r	2000 ^r	2001 ^r	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Manufacturing Industries	10,790	11,230	13,620	15,050	15,200	14,080	12,940	12,430	13,600
Service Industries	45,980	44,940	48,130	52,100	56,470	52,630	54,160	56,050	56,890
Motion picture production & post production	1,540	2,390	3,740	3,090	3,240	4,320	4,560	4,980	5,270
Telecommunications	16,340	15,940	15,320	15,890	15,770	12,060	11,210	12,080	11,240
Engineering services	12,770	10,070	9,900	9,300	10,100	9,300	8,980	8,900	8,870
Computer and related services	10,980	12,020	14,600	18,570	20,860	21,290	23,340	23,820	25,010
Other services	4,360	4,520	4,580	5,250	6,500	5,650	6,060	6,270	6,490
High Technology Sector Total	56,760	56,170	61,750	67,140	71,670	66,700	67,090	68,480	70,490
BC Industrial Aggregate	1,496,760	1,508,590	1,511,500	1,571,810	1,593,100	1,612,280	1,645,450	1,682,590	1,723,970

	% change from previous year							
INDUSTRY	1998 ^r	1999 ^r	2000 ^r	2001 ^r	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Manufacturing Industries	4.1	21.2	10.5	1.0	-7.4	-8.1	-3.9	9.4
Service Industries	-2.3	7.1	8.2	8.4	-6.8	2.9	3.5	1.5
Motion picture production & post production	55.1	56.9	-17.3	4.6	33.5	5.5	9.2	5.9
Telecommunications	-2.4	-3.9	3.7	-0.8	-23.5	-7.0	7.8	-7.0
Engineering services	-21.1	-1.7	-6.1	8.6	-7.9	-3.4	-0.9	-0.4
Computer and related services	9.5	21.4	27.2	12.3	2.1	9.6	2.1	5.0
Other services	3.8	1.2	14.6	24.0	-13.1	7.2	3.4	3.6
High Technology Sector Total	-1.0	9.9	8.7	6.7	-6.9	0.6	2.1	2.9
BC Industrial Aggregate	0.8	0.2	4.0	1.4	1.2	2.1	2.3	2.5

1. Totals and percent changes are calculated using unrounded data.

^r Revised^p Preliminary

Source: BC Stats and Statistics Canada

Table 11. Employment by Industry,¹ British Columbia, 1995-2005

	Persons (thousands)										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Goods Producing Industries	299.0	298.8	308.6	301.3	301.9	314.8	300.8	294.1	298.7	307.3	315.5
Agriculture and Related	na	na	na	na	na	na	na	na	na	na	na
Fishing and Related	na	na	na	na	na	na	na	na	na	na	na
Forestry and Related	80.5	81.2	79.4	73.6	76.8	80.5	70.7	60.1	61.9	62.5	59.9
<i>Logging and Forestry</i>	<i>19.8</i>	<i>20.1</i>	<i>19.7</i>	<i>17.6</i>	<i>17.8</i>	<i>18.3</i>	<i>18.1</i>	<i>14.2</i>	<i>14.0</i>	<i>14.6</i>	<i>13.6</i>
<i>Paper and Allied Products</i>	<i>20.3</i>	<i>18.5</i>	<i>16.6</i>	<i>16.6</i>	<i>17.8</i>	<i>18.8</i>	<i>15.0</i>	<i>11.5</i>	<i>13.7</i>	<i>13.2</i>	<i>12.3</i>
<i>Wood Manufacturing</i>	<i>40.4</i>	<i>42.6</i>	<i>43.1</i>	<i>39.4</i>	<i>41.2</i>	<i>43.4</i>	<i>37.6</i>	<i>34.4</i>	<i>34.2</i>	<i>34.8</i>	<i>34.0</i>
Mining and Oil and Gas Extraction	13.1	11.9	12.8	13.0	10.7	10.6	10.5	10.3	10.5	11.5	12.6
Other Manufacturing	76.1	77.2	83.2	87.8	91.5	98.9	97.8	101.3	99.6	98.8	102.0
Construction	74.8	76.7	80.0	77.2	72.6	74.3	73.7	77.2	81.1	89.1	95.6
Utilities	8.3	8.6	8.6	8.4	9.1	9.4	9.2	9.3	8.6	8.7	9.3
Service Producing Industries	1,142.3	1,157.4	1,183.0	1,198.1	1,199.6	1,250.4	1,284.9	1,309.3	1,336.2	1,359.3	1,385.3
Retail and Wholesale Trade	252.0	252.9	255.9	257.8	258.7	271.3	281.4	294.3	307.3	318.7	329.2
Transportation and Warehousing	86.7	82.0	83.6	85.1	83.2	83.2	82.4	82.8	82.7	84.1	85.7
Information and Culture	34.4	35.0	34.5	35.0	34.5	36.3	38.1	38.9	40.4	40.7	40.4
Finance, Insurance and Real Estate	97.6	94.8	99.0	99.7	97.9	101.6	100.4	100.4	98.8	96.4	97.1
Professional, Scientific and Technical	65.1	66.6	68.9	72.4	74.4	82.0	84.8	83.2	83.9	84.3	84.5
Educational	112.6	120.5	121.5	122.2	123.6	127.7	132.8	136.1	136.7	137.3	138.6
Health and Social	150.9	154.0	155.7	162.9	167.9	174.5	178.1	183.8	190.8	190.1	191.2
Arts, Entertainment and Recreation	30.0	29.9	29.5	27.3	24.7	26.5	27.4	28.8	30.6	31.8	33.2
Accommodation, and Food	127.4	132.1	137.3	139.0	139.3	144.8	147.2	147.2	146.7	145.4	146.6
Public Administration	76.8	76.1	76.1	76.6	74.7	74.1	74.8	73.6	75.9	80.3	82.2
Other Services	108.9	113.6	121.1	120.1	120.7	128.5	137.4	140.3	142.4	150.2	156.7
BC Industrial Aggregate	1,444.9	1,459.4	1,496.8	1,508.6	1,511.5	1,571.8	1,593.1	1,612.3	1,645.5	1,682.6	1,724.0
High Technology Sector Total	na	na	56.6	56.2	61.8	67.1	71.7	66.7	67.1	68.5	70.5
	% change from previous year										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Goods Producing Industries	-1.2	-0.1	3.3	-2.4	0.2	4.3	-4.4	-2.2	1.6	2.9	2.6
Agriculture and Related	na	na	na	na	na	na	na	na	na	na	na
Fishing and Related	na	na	na	na	na	na	na	na	na	na	na
Forestry and Related	-2.9	0.8	-2.3	-7.2	4.3	4.8	-12.1	-15.0	3.0	0.9	-4.2
<i>Logging and Forestry</i>	<i>1.2</i>	<i>1.3</i>	<i>-2.0</i>	<i>-10.6</i>	<i>0.8</i>	<i>2.9</i>	<i>-0.8</i>	<i>-21.6</i>	<i>-1.3</i>	<i>3.7</i>	<i>-6.9</i>
<i>Paper and Allied Products</i>	<i>-0.1</i>	<i>-8.9</i>	<i>-10.3</i>	<i>0.1</i>	<i>7.1</i>	<i>6.0</i>	<i>-20.2</i>	<i>-23.6</i>	<i>19.6</i>	<i>-4.0</i>	<i>-6.9</i>
<i>Wood Manufacturing</i>	<i>-6.1</i>	<i>5.5</i>	<i>1.0</i>	<i>-8.5</i>	<i>4.7</i>	<i>5.1</i>	<i>-13.3</i>	<i>-8.3</i>	<i>-0.8</i>	<i>1.7</i>	<i>-2.1</i>
Mining and Oil and Gas Extraction	6.2	-9.2	7.7	1.8	-18.0	-0.4	-0.7	-2.2	2.0	9.5	9.7
Other Manufacturing	-5.7	1.5	7.8	5.5	4.2	8.1	-1.1	3.5	-1.6	-0.8	3.2
Construction	0.9	2.6	4.4	-3.5	-5.9	2.3	-0.8	4.7	5.0	9.9	7.3
Utilities	-6.8	3.4	-0.6	-2.2	8.6	2.7	-1.8	1.1	-7.5	1.0	7.2
Service Producing Industries	4.8	1.3	2.2	1.3	0.1	4.2	2.8	1.9	2.1	1.7	1.9
Retail and Wholesale Trade	4.7	0.4	1.2	0.7	0.4	4.9	3.7	4.6	4.4	3.7	3.3
Transportation and Warehousing	2.1	-5.4	2.0	1.7	-2.2	0.0	-1.0	0.5	-0.1	1.8	1.9
Information and Culture	2.4	1.9	-1.5	1.6	-1.5	5.2	4.9	2.2	3.7	0.7	-0.7
Finance, Insurance and Real Estate	4.6	-2.9	4.4	0.7	-1.8	3.8	-1.1	-0.1	-1.6	-2.4	0.7
Professional, Scientific and Technical	17.7	2.2	3.6	5.1	2.7	10.3	3.4	-1.9	0.9	0.5	0.2
Educational	7.1	7.0	0.8	0.6	1.1	3.3	4.0	2.5	0.5	0.4	0.9
Health and Social	4.6	2.0	1.1	4.7	3.0	3.9	2.1	3.2	3.8	-0.4	0.6
Arts, Entertainment and Recreation	4.5	-0.3	-1.4	-7.3	-9.4	7.0	3.5	5.0	6.3	4.0	4.3
Accommodation, and Food	1.0	3.7	3.9	1.3	0.2	4.0	1.6	0.0	-0.4	-0.9	0.8
Public Administration	-0.8	-0.9	0.0	0.6	-2.4	-0.9	1.0	-1.7	3.1	5.8	2.3
Other Services	8.5	4.3	6.6	-0.8	0.5	6.4	7.0	2.1	1.5	5.5	4.3
BC Industrial Aggregate	3.5	1.0	2.6	0.8	0.2	4.0	1.4	1.2	2.1	2.3	2.5
High Technology Sector Total	na	na	na	-1.0	9.9	8.7	6.7	-6.9	0.6	2.1	2.9

1. Totals and percent changes are calculated using unrounded data.

na: Data not available for specific industry.

Source: Statistics Canada and BC Stats

Table 12. High Technology Sector Employment, by Province, 1997-2005

Province	1997 ^f	1998 ^f	1999 ^f	2000 ^f	2001 ^f	2002 ^f	2003 ^f	2004 ^f	2005 ^p
Canada	563,790	602,690	649,950	698,080	728,590	723,360	723,360	724,920	733,230
British Columbia	56,760	56,170	61,750	67,140	71,670	66,700	67,090	68,480	70,490
Alberta	51,790	56,680	59,440	62,380	72,680	71,410	70,040	73,960	72,930
Ontario	242,870	260,580	279,640	302,230	308,720	308,700	310,240	313,180	312,760
Quebec	165,940	178,340	187,900	202,400	210,750	206,700	209,230	204,430	206,240

% change from previous year									
Province	1998 ^f	1999 ^f	2000 ^f	2001 ^f	2002 ^f	2003 ^f	2004 ^f	2005 ^p	
Canada	6.9	7.8	7.4	4.4	-0.7	0.0	0.2	1.1	
British Columbia	-1.0	9.9	8.7	6.7	-6.9	0.6	2.1	2.9	
Alberta	9.4	4.9	4.9	16.5	-1.8	-1.9	5.6	-1.4	
Ontario	7.3	7.3	8.1	2.1	0.0	0.5	0.9	-0.1	
Quebec	7.5	5.4	7.7	4.1	-1.9	1.2	-2.3	0.9	

^f Revised^p Preliminary

Source: BC Stats

Table 13. High Technology Sector Employment for Selected States, 2001-2005

Province	2001	2002	2003	2004	2005 ^p	% change from previous year ¹			
						2002	2003	2004	2005 ^p
USA	8,592,370	7,934,590	7,536,500	7,518,430	7,646,510	-7.7	-5.0	-0.2	1.7
California	1,501,250	1,377,280	1,297,540	1,314,130	1,334,450	-8.3	-5.8	1.3	1.5
Texas	656,500	593,830	566,490	557,140	571,420	-9.5	-4.6	-1.7	2.6
New York	495,790	461,570	431,070	425,760	429,250	-6.9	-6.6	-1.2	0.8
Florida	372,080	350,260	337,710	345,820	360,300	-5.9	-3.6	2.4	4.2
Virginia	307,380	285,410	278,530	292,150	301,650	-7.1	-2.4	4.9	3.3
Massachusetts	357,940	317,000	294,730	287,570	289,380	-11.4	-7.0	-2.4	0.6
Pennsylvania	335,560	310,900	294,880	287,350	289,010	-7.3	-5.2	-2.6	0.6
Illinois	336,030	305,640	285,160	277,340	278,740	-9.0	-6.7	-2.7	0.5
New Jersey	319,800	292,300	275,690	270,350	271,200	-8.6	-5.7	-1.9	0.3
Washington	275,610	251,070	234,220	232,910	243,300	-8.9	-6.7	-0.6	4.5
Michigan	246,570	234,090	224,620	216,420	216,390	-5.1	-4.0	-3.7	0.0
Ohio	250,080	232,720	221,210	211,620	213,500	-6.9	-4.9	-4.3	0.9
Colorado	237,650	208,600	191,680	188,920	188,280	-12.2	-8.1	-1.4	-0.3
Connecticut	149,670	140,520	132,880	131,950	130,580	-6.1	-5.4	-0.7	-1.0
Oregon	112,560	100,690	93,770	94,590	96,440	-10.5	-6.9	0.9	2.0
New Hampshire	55,240	46,420	43,740	45,940	46,840	-16.0	-5.8	5.0	2.0
Other States	2,582,660	2,426,290	2,332,580	2,338,470	2,385,780	-6.1	-3.9	0.3	2.0

1. Percent changes are calculated using unrounded data.

^p Preliminary

Source: BC Stats

Table 14. High Technology Sector Wages and Salaries, 1997-2005

INDUSTRY	Value (\$ million)								
	1997 ^r	1998 ^r	1999 ^r	2000 ^r	2001 ^r	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Manufacturing Industries	386.4	447.5	506.4	555.4	632.9	712.4	697.2	640.6	712.3
Service Industries	2,427.5	2,243.6	2,341.0	2,665.4	2,886.3	2,651.8	2,798.2	2,916.9	3,016.1
Motion picture production & post production	44.9	53.7	114.9	95.5	94.2	96.2	107.9	100.5	121.5
Telecommunications	866.3	835.9	805.9	841.9	825.2	640.8	579.8	642.0	632.5
Engineering services	803.6	583.9	495.7	529.2	650.7	566.7	617.0	618.9	632.1
Computer and related services	600.1	656.5	812.3	1,065.3	1,155.5	1,199.2	1,326.1	1,391.5	1,454.4
Other services	112.5	113.6	112.1	133.5	160.7	148.9	167.4	164.1	175.7
High Technology Sector Total	2,813.9	2,691.0	2,847.4	3,220.8	3,519.2	3,364.2	3,495.4	3,557.6	3,728.4
BC Industrial Aggregate	49,851.4	50,583.7	51,305.4	54,325.5	55,446.7	56,722.0	58,574.6	61,093.2	64,378.6

INDUSTRY	% change from previous year							
	1998 ^r	1999 ^r	2000 ^r	2001 ^r	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Manufacturing Industries	15.8	13.2	9.7	14.0	12.6	-2.1	-8.1	11.2
Service Industries	-7.6	4.3	13.9	8.3	-8.1	5.5	4.2	3.4
Motion picture production & post production	19.6	114.0	-16.9	-1.4	2.1	12.2	-6.9	20.9
Telecommunications	-3.5	-3.6	4.5	-2.0	-22.3	-9.5	10.7	-1.5
Engineering services	-27.3	-15.1	6.8	23.0	-12.9	8.9	0.3	2.1
Computer and related services	9.4	23.7	31.1	8.5	3.8	10.6	4.9	4.5
Other services	1.0	-1.3	19.1	20.4	-7.3	12.4	-2.0	7.1
High Technology Sector Total	-4.4	5.8	13.1	9.3	-4.4	3.9	1.8	4.8
BC Industrial Aggregate	1.5	1.4	5.9	2.1	2.3	3.3	4.3	5.4

^r Revised^p Preliminary

Source: BC Stats and Statistics Canada

Table 15. High Technology Sector Average Weekly Earnings,¹ 1997-2005

	Dollars per employee week (including overtime)								
INDUSTRY	1997 ^f	1998 ^f	1999 ^f	2000 ^f	2001 ^f	2002 ^f	2003 ^f	2004 ^f	2005 ^p
Manufacturing Industries	690	760	710	710	800	970	1,030	990	1,000
Service Industries	1,010	960	930	980	980	970	990	1,000	1,020
Motion picture production & post production	560	430	590	590	560	430	450	390	440
Telecommunications	1,020	1,010	1,010	1,020	1,000	1,020	990	1,020	1,080
Engineering services	1,210	1,110	960	1,090	1,240	1,170	1,320	1,330	1,370
Computer and related services	1,050	1,050	1,070	1,100	1,060	1,080	1,090	1,120	1,120
Other services	490	480	470	490	470	510	530	500	520
High Technology Sector Total	950	920	880	920	940	970	1,000	1,000	1,010
BC Industrial Aggregate	640	640	650	660	670	670	680	700	720
	% change from previous year								
INDUSTRY	1998 ^f	1999 ^f	2000 ^f	2001 ^f	2002 ^f	2003 ^f	2004 ^f	2005 ^p	
Manufacturing Industries	11.3	-6.7	-0.7	12.8	21.5	6.5	-4.3	1.6	
Service Industries	-5.4	-2.6	5.2	-0.1	-1.4	2.5	0.7	1.9	
Motion picture production & post production	-22.9	36.7	0.6	-5.9	-23.4	6.3	-14.7	14.2	
Telecommunications	-1.1	0.3	0.7	-1.2	1.5	-2.7	2.8	5.9	
Engineering services	-7.9	-13.6	13.6	13.2	-5.4	12.8	1.2	2.5	
Computer and related services	-0.1	1.9	3.1	-3.4	1.7	0.9	2.8	-0.5	
Other services	-2.6	-2.6	3.9	-2.8	6.6	4.8	-5.3	3.4	
High Technology Sector Total	-3.4	-3.7	4.0	2.4	2.7	3.3	-0.3	1.8	
BC Industrial Aggregate	0.7	1.2	1.8	0.7	1.1	1.2	2.0	2.8	

1. Totals and percent changes are calculated using unrounded data.

^f Revised^p Preliminary

Source: BC Stats and Statistics Canada

Table 16. High Technology Sector Average Weekly Earnings, by Province, 1997-2005

Province	1997 ^f	1998 ^f	1999 ^f	2000 ^f	2001 ^f	2002 ^f	2003 ^f	2004 ^f	2005 ^p
Canada	840	850	870	910	920	940	960	990	1,020
British Columbia	950	920	880	920	940	970	1,000	1,000	1,010
Alberta	900	900	850	910	930	980	1,010	1,010	1,040
Ontario	880	910	940	990	1,020	1,030	1,050	1,060	1,100
Quebec	780	780	830	830	830	840	850	920	950
% change from previous year									
Province	1998 ^f	1999 ^f	2000 ^f	2001 ^f	2002 ^f	2003 ^f	2004 ^f	2005 ^p	
Canada	1.3	1.9	4.1	1.9	1.6	2.9	2.5	2.9	
British Columbia	-3.4	-3.7	4.0	2.4	2.7	3.3	-0.3	1.8	
Alberta	-0.1	-5.7	7.1	2.4	5.3	2.4	0.8	2.3	
Ontario	3.4	3.4	5.1	2.8	0.5	2.8	0.9	3.0	
Quebec	-0.3	5.9	0.2	0.5	1.2	1.2	7.5	3.3	

^f Revised^p Preliminary

Source: BC Stats

Table 17. High Technology Sector Wages and Salaries for Selected States, 2001-2005

Province	Value (\$Cdn million) ¹					% change from previous year			
	2001	2002	2003	2004	2005 ^p	2002	2003	2004	2005 ^p
USA	852,032	800,000	704,666	686,009	676,954	-6.1	-11.9	-2.6	-1.3
California	181,330	164,517	146,389	146,281	145,653	-9.3	-11.0	-0.1	-0.4
Texas	65,922	60,076	52,023	50,279	50,439	-8.9	-13.4	-3.4	0.3
New York	49,492	47,324	40,822	39,412	38,555	-4.4	-13.7	-3.5	-2.2
Massachusetts	41,603	37,475	32,637	31,643	30,546	-9.9	-12.9	-3.0	-3.5
Virginia	34,008	30,771	28,092	28,932	29,402	-9.5	-8.7	3.0	1.6
New Jersey	36,470	34,957	30,432	29,353	28,007	-4.1	-12.9	-3.5	-4.6
Florida	29,810	28,980	25,618	25,718	25,871	-2.8	-11.6	0.4	0.6
Illinois	32,340	30,044	25,793	24,740	24,607	-7.1	-14.1	-4.1	-0.5
Pennsylvania	30,407	29,691	26,005	24,680	24,013	-2.4	-12.4	-5.1	-2.7
Washington	35,061	32,961	28,023	23,295	23,964	-6.0	-15.0	-16.9	2.9
Michigan	23,889	23,111	20,813	19,294	18,456	-3.3	-9.9	-7.3	-4.3
Colorado	25,485	22,639	19,489	18,290	17,785	-11.2	-13.9	-6.2	-2.8
Ohio	20,354	19,423	17,076	15,981	15,448	-4.6	-12.1	-6.4	-3.3
Connecticut	16,267	15,241	13,233	12,935	12,434	-6.3	-13.2	-2.3	-3.9
Oregon	10,641	9,483	8,322	8,292	8,043	-10.9	-12.2	-0.4	-3.0
New Hampshire	5,087	4,540	3,962	4,026	3,960	-10.7	-12.7	1.6	-1.6
Other States	213,867	208,767	185,937	182,861	179,771	-2.4	-10.9	-1.7	-1.7

Province	Average Weekly Wage (\$Cdn)					% change from previous year			
	2001	2002	2003	2004	2005 ^p	2002	2003	2004	2005 ^p
USA	1,901	1,934	1,793	1,750	1,697	1.7	-7.3	-2.4	-3.0
California	2,316	2,291	2,164	2,135	2,093	-1.1	-5.6	-1.3	-1.9
Texas	1,926	1,940	1,761	1,731	1,693	0.8	-9.2	-1.7	-2.2
New York	1,914	1,966	1,816	1,775	1,723	2.7	-7.6	-2.3	-3.0
Massachusetts	2,229	2,267	2,124	2,110	2,024	1.7	-6.3	-0.6	-4.1
Virginia	2,122	2,068	1,934	1,899	1,869	-2.6	-6.5	-1.8	-1.6
New Jersey	2,187	2,294	2,117	2,082	1,981	4.9	-7.7	-1.6	-4.9
Florida	1,536	1,587	1,455	1,426	1,377	3.3	-8.3	-2.0	-3.4
Illinois	1,846	1,885	1,735	1,711	1,693	2.1	-8.0	-1.4	-1.0
Pennsylvania	1,738	1,832	1,691	1,647	1,593	5.4	-7.7	-2.6	-3.3
Washington	2,440	2,518	2,295	1,918	1,889	3.2	-8.9	-16.4	-1.5
Michigan	1,858	1,893	1,777	1,710	1,636	1.9	-6.1	-3.8	-4.3
Colorado	2,057	2,081	1,950	1,857	1,812	1.2	-6.3	-4.8	-2.4
Ohio	1,561	1,601	1,480	1,448	1,388	2.5	-7.5	-2.2	-4.2
Connecticut	2,084	2,080	1,910	1,880	1,826	-0.2	-8.2	-1.6	-2.9
Oregon	1,813	1,806	1,702	1,681	1,600	-0.4	-5.8	-1.2	-4.9
New Hampshire	1,766	1,876	1,737	1,681	1,621	6.2	-7.4	-3.3	-3.5

1. Figures converted from U.S. dollar data using an average annual exchange rate.

^p Preliminary

Source: BC Stats

Table 18. High Technology Sector Establishments,¹ by Development Region and Regional District, 2002-2005

Development Region Regional District	2002 ²			2003 ²			2004 ²			2005		
	Mfg	Service	Total	Mfg	Service	Total	Mfg	Service	Total	Mfg	Service	Total
Vancouver Island/Coast	110	1,238	1,348	107	1,249	1,356	107	1,264	1,371	114	1,355	1,469
23 Alberni-Clayoquot	2	24	26	2	21	23	3	21	24	3	24	27
17 Capital	66	819	885	62	819	881	59	795	854	66	853	919
45 Central Coast	0	3	3	0	4	4	0	3	3	0	3	3
25 Comox-Strathcona	16	102	118	17	106	123	16	126	142	16	132	148
19 Cowichan Valley	7	72	79	7	73	80	10	85	95	11	89	100
43 Mount Waddington	1	18	19	2	17	19	1	17	18	0	18	18
21 Nanaimo	18	180	198	17	191	208	18	197	215	18	213	231
27 Powell River	0	20	20	0	18	18	0	20	20	0	23	23
Mainland/Southwest	565	5,055	5,620	548	5,111	5,659	557	5,156	5,713	569	5,364	5,933
09 Fraser Valley	35	165	200	26	181	207	29	168	197	31	183	214
15 Greater Vancouver	520	4,800	5,320	514	4,833	5,347	518	4,882	5,400	528	5,077	5,605
31 Squamish-Lillooet	4	57	61	3	59	62	3	60	63	3	58	61
29 Sunshine Coast	6	33	39	5	38	43	7	46	53	7	46	53
Thompson/Okanagan	78	542	620	78	563	641	75	557	632	86	595	681
35 Central Okanagan	43	198	241	43	223	266	41	214	255	48	221	269
39 Columbia-Shuswap	2	58	60	4	58	62	3	61	64	3	66	69
37 North Okanagan	11	78	89	9	72	81	10	81	91	12	90	102
07 Okanagan-Similkameen	10	65	75	8	69	77	7	62	69	8	71	79
33 Thompson-Nicola	12	143	155	14	141	155	14	139	153	15	147	162
Kootenay	18	184	202	18	189	207	16	191	207	16	194	210
03 Central Kootenay	8	86	94	8	85	93	7	84	91	6	87	93
01 East Kootenay	5	57	62	4	65	69	3	66	69	4	64	68
05 Kootenay Boundary	5	41	46	6	39	45	6	41	47	6	43	49
Cariboo	23	178	201	17	167	184	19	157	176	17	150	167
41 Cariboo	7	67	74	5	62	67	5	66	71	3	60	63
53 Fraser-Fort George	16	111	127	12	105	117	14	91	105	14	90	104
North Coast	3	58	61	3	48	51	2	45	47	1	49	50
49 Kitimat-Stikine	3	38	41	2	36	38	2	32	34	1	34	35
47 Skeena-Queen Charlotte	0	20	20	1	12	13	0	13	13	0	15	15
Nechako	4	50	54	4	50	54	5	48	53	5	53	58
51 Bulkley-Nechako	4	50	54	4	50	54	5	47	52	5	51	56
57 Stikine	0	0	0	0	0	0	0	1	1	0	2	2
Northeast	8	133	141	7	140	147	7	145	152	6	159	165
55 Peace River	7	126	133	6	133	139	6	133	139	5	149	154
59 Northern Rockies	1	7	8	1	7	8	1	12	13	1	10	11
Total²	809	7,443	8,252	783	7,524	8,307	789	7,580	8,369	815	7,933	8,748

1. Establishments with zero employees are not included in these figures.

2. Figures do not add to totals because some establishments did not have geographic codes.

* Revised

Source: BC Stats

Table 19. High Technology Sector Establishments,¹ by Industry, 1998-2005

Industry	1998 ^c	1999 ^c	2000 ^c	2001 ^c	2002 ^c	2003 ^c	2004 ^c	2005
Manufacturing Industries	838	871	859	826	809	783	789	815
Service Industries	6,028	6,552	7,241	7,526	7,443	7,524	7,580	7,933
Motion picture production & post production	583	667	793	851	864	859	877	917
Telecommunications	207	213	231	255	240	235	219	219
Engineering services	1,934	1,956	1,930	1,845	1,792	1,795	1,793	1,862
Computer and related services	2,000	2,316	2,801	2,967	2,879	2,925	2,908	3,075
Other services	1,304	1,400	1,486	1,608	1,668	1,710	1,783	1,860
High Technology Sector	6,866	7,423	8,100	8,352	8,252	8,307	8,369	8,748

Industry	% change from previous year						
	1999 ^c	2000 ^c	2001 ^c	2002 ^c	2003 ^c	2004 ^c	2005
Manufacturing Industries	3.9	-1.4	-3.8	-2.1	-3.2	0.8	3.3
Service Industries	8.7	10.5	3.9	-1.1	1.1	0.7	4.7
Motion picture production & post production	14.4	18.9	7.3	1.5	-0.6	2.1	4.6
Telecommunications	2.9	8.5	10.4	-5.9	-2.1	-6.8	0.0
Engineering services	1.1	-1.3	-4.4	-2.9	0.2	-0.1	3.8
Computer and related services	15.8	20.9	5.9	-3.0	1.6	-0.6	5.7
Other services	7.4	6.1	8.2	3.7	2.5	4.3	4.3
High Technology Sector	8.1	9.1	3.1	-1.2	0.7	0.7	4.5

1. Establishments with zero employees are not included in these figures.

^c Revised

Source: BC Stats and Statistics Canada

Table 20. High Technology Sector Establishments, by Industry and Establishment Size, 2005

Industry	Number of establishments, by number of employees						None	Total
	1 to 4	5 to 9	10 to 19	20 to 49	50 plus	Subtotal		
Manufacturing Industries	424	112	99	90	90	815	481	1,296
Service Industries	5,512	972	650	467	332	7,933	13,148	21,081
Motion picture production & post production	651	125	73	41	27	917	1,885	2,802
Telecommunications	117	23	18	34	27	219	155	374
Engineering services	1,225	270	172	127	68	1,862	2,490	4,352
Computer and related services	2,270	292	222	159	132	3,075	5,719	8,794
Other services	1,249	262	165	106	78	1,860	2,899	4,759
Total for sector	5,936	1,084	749	557	422	8,748	13,629	22,377
Total for all Industries	94,748	28,003	19,140	13,076	7,765	162,732	182,495	345,227

Source: BC Stats and Statistics Canada

Table 21. Shipments and Exports of BC High Technology Goods and Total Processed Goods, 1995-2005

	Value (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p
High Technology Goods											
Total Shipments ¹	1,323	1,539	1,763	1,845	2,267	2,819	2,524	2,122	2,241	2,571	2,356
Exports	407	451	581	769	840	923	748	685	635	686	704
Exports as % of Shipments	30.8	29.3	33.0	41.7	37.1	32.7	29.6	32.3	28.3	26.7	29.9
Total Processed Goods											
Total Shipments ¹	34,207	32,932	33,496	31,757	36,679	40,699	38,303	38,610	39,691	42,303	41,140
Exports of Processed Goods ²	22,826	21,255	21,782	20,874	23,955	25,175	22,869	22,534	20,804	23,569	22,578
Export Orientation (%)	66.7	64.5	65.0	65.7	65.3	61.9	59.7	58.4	52.4	55.7	54.9
	% change from previous year										
	1995	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p
High Technology Goods											
Total Shipments	13.7	16.3	14.5	4.7	22.9	24.4	-10.4	-15.9	5.6	14.7	-8.3
Exports	4.1	10.8	29.0	32.3	9.2	9.9	-19.0	-8.5	-7.2	8.1	2.6
Total Processed Goods											
Total Shipments	12.8	-3.7	1.7	-5.2	15.5	11.0	-5.9	0.8	2.8	6.6	-2.8
Exports of Processed Goods	18.8	-6.9	2.5	-4.2	14.8	5.1	-9.2	-1.5	-7.7	13.3	-4.2

1. Total shipments represent revenues from all production, sales, services and related activities in the manufacturing sector.

2. "Processed goods" excludes selected agricultural, fish, logging, mining and energy products not produced by BC manufacturing industries.

^r Revised^p Preliminary

Source: BC Stats and Statistics Canada

Table 22. Domestic Exports of High Technology Goods, by Destination and Mode of Transport, 1995-2005

		Value (\$ million) ¹										
Destination	Mode of Transport ²	1995	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p
United States	Land	160.3	159.1	240.7	384.8	408.6	477.4	343.8	384.2	357.5	351.9	329.8
	Sea	1.7	1.7	5.6	3.4	5.2	1.5	1.4	0.0	0.0	0.0	0.0
	Air	124.4	127.9	168.1	208.4	266.2	294.1	251.2	173.9	149.2	157.2	156.2
	Total	286.4	288.7	414.4	596.6	680.0	773.0	596.4	558.1	506.6	509.1	486.0
Pacific Rim (total)	Land	7.1	12.3	14.9	8.5	6.8	0.4	1.0	7.5	4.4	1.4	0.6
	Sea	5.5	12.1	5.6	8.9	4.7	9.4	4.6	13.7	2.2	3.4	11.3
	Air	59.5	81.8	94.1	78.7	72.3	56.9	27.8	25.9	35.7	61.3	85.6
	Total	72.1	106.2	114.6	96.1	83.8	66.8	33.3	47.2	42.3	66.2	97.4
Japan	Land	2.2	3.1	2.7	0.0	0.4	0.1	0.3	4.5	1.7	0.3	0.3
	Sea	0.6	1.0	0.3	0.9	0.3	2.1	0.7	12.1	0.1	0.3	0.1
	Air	10.8	14.6	16.3	7.7	4.5	28.1	8.7	5.4	5.5	10.4	19.6
	Total	13.6	18.7	19.3	8.6	5.2	30.4	9.7	22.0	7.3	11.1	20.0
Pacific Rim (excluding Japan)	Land	4.9	9.2	12.2	8.5	6.4	0.3	0.7	3.1	2.7	1.1	0.3
	Sea	4.9	11.0	5.4	8.1	4.4	7.4	3.8	1.6	2.1	3.1	11.2
	Air	48.7	67.2	77.8	70.9	67.8	28.8	19.1	20.5	30.2	50.9	66.0
	Total	58.5	87.4	95.3	87.5	78.6	36.4	23.6	25.1	35.0	55.1	77.4
European Union	Land	1.6	0.1	1.5	5.7	0.2	1.6	3.0	0.5	0.3	5.2	0.5
	Sea	0.1	2.4	1.1	1.5	4.6	1.2	8.3	5.3	7.9	8.3	2.1
	Air	31.1	27.1	30.8	51.4	48.8	57.4	76.1	52.4	43.1	51.6	67.3
	Total	32.9	29.6	33.4	58.5	53.7	60.2	87.5	58.1	51.3	65.1	69.9
All Other Countries	Land	0.8	1.7	1.5	0.7	1.6	2.1	7.1	1.6	1.3	2.3	0.7
	Sea	0.8	1.9	3.0	1.4	1.2	2.6	9.1	1.9	2.3	2.9	2.0
	Air	13.9	22.5	14.3	15.9	19.8	18.4	14.7	17.7	31.3	40.8	48.0
	Total	15.5	26.1	18.9	18.0	22.6	23.1	30.9	21.2	34.9	45.9	50.6
Total	Land	169.8	173.2	258.8	399.7	417.2	481.6	354.9	393.8	363.5	360.8	331.5
	Sea	8.1	18.1	15.3	15.2	15.7	14.7	23.4	20.9	12.4	14.7	15.3
	Air	228.9	259.4	307.3	354.4	407.2	426.7	369.8	269.9	259.2	310.9	357.0
	Total	406.8	450.6	581.4	769.2	840.1	923.1	748.1	684.6	635.2	686.4	703.9

		% of Exports to Destination ³										
Destination	Mode of Transport	1995	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p
United States	Land	56.0	55.1	58.1	64.5	60.1	61.8	57.6	68.8	70.6	69.1	67.9
	Sea	0.6	0.6	1.4	0.6	0.8	0.2	0.2	0.0	0.0	0.0	0.0
	Air	43.4	44.3	40.6	34.9	39.1	38.0	42.1	31.2	29.4	30.9	32.1
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Pacific Rim (total)	Land	9.9	11.6	13.0	8.9	8.1	0.7	3.0	16.0	10.4	2.2	0.6
	Sea	7.6	11.4	4.9	9.3	5.6	14.1	13.7	29.1	5.2	5.2	11.6
	Air	82.5	77.1	82.1	81.8	86.3	85.2	83.3	54.9	84.4	92.7	87.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Japan	Land	16.5	16.6	14.2	0.0	8.3	0.5	3.1	20.3	23.7	2.8	1.5
	Sea	4.4	5.5	1.3	10.0	5.1	6.8	7.7	55.1	1.5	2.7	0.3
	Air	79.1	77.9	84.5	89.9	86.6	92.7	89.2	24.6	74.7	94.4	98.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Pacific Rim (excluding Japan)	Land	8.4	10.5	12.8	9.7	8.1	0.8	2.9	12.2	7.6	2.0	0.3
	Sea	8.3	12.6	5.6	9.2	5.6	20.2	16.2	6.4	5.9	5.6	14.5
	Air	83.3	76.9	81.6	81.0	86.3	78.9	81.0	81.5	86.5	92.3	85.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
European Union	Land	5.0	0.4	4.6	9.7	0.5	2.7	3.5	0.8	0.7	8.0	0.7
	Sea	0.4	8.0	3.2	2.6	8.6	2.0	9.5	9.1	15.3	12.8	3.0
	Air	94.6	91.6	92.2	87.7	90.9	95.3	87.0	90.1	84.0	79.2	96.3
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
All Other Countries	Land	4.9	6.6	8.2	3.8	7.0	9.2	23.1	7.7	3.8	4.9	1.3
	Sea	5.3	7.2	16.0	7.6	5.3	11.2	29.5	8.7	6.7	6.3	3.9
	Air	89.8	86.1	75.8	88.6	87.8	79.6	47.4	83.6	89.5	88.8	94.8
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total	Land	41.7	38.4	44.5	52.0	49.7	52.2	47.4	57.5	57.2	52.6	47.1
	Sea	2.0	4.0	2.6	2.0	1.9	1.6	3.1	3.0	1.9	2.1	2.2
	Air	56.3	57.6	52.9	46.1	48.5	46.2	49.4	39.4	40.8	45.3	50.7
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1. Totals may not equal the sum of Land, Sea and Air due to the fact that some respondents did not fill in the survey completely.

2. Shipments by land to overseas markets represent the export of BC produced high technology products transhipped by US Ports such as Seattle or Portland.

3. Percentages may not add to 100 due to rounding.

^r Revised^p Preliminary

Source: BC Stats

Table 23. Top 25 High Technology Export Commodities, 2005^a

HS Code	Commodity Description ¹	Value (\$000,000)	% Total Exports
88033000	Aircraft parts nes	92.1	13.1
90181900	Electro-diagnostic apparatus, nes	72.4	10.3
90328900	Automatic regulating or controlling instruments and apparatus, nes	72.1	10.2
85252000	Transmission apparatus, for radioteleph incorporating reception apparatus	43.2	6.1
84733000	Parts and accessories of automatic data processing machines & units thereof	30.9	4.4
85254000	Still image video cameras and other video camera recorders; digital cameras	27.3	3.9
85243190	Rec disc laser reading syst for repro phenomena o/t sound/image,o/t software,nes	23.4	3.3
90148000	Navigational instruments and appliances nes	21.0	3.0
85251000	Transmission apparatus for radio-teleph radio-broadcasting or television	20.4	2.9
28444019	Radioactive elements & isotopes and compounds, nes	19.0	2.7
84714900	Other digital automatic data processing machines, presented in the form of systems	13.0	1.8
84718000	Other units for automatic data processing machines	12.4	1.8
90213900	Artificial parts of the body, nes	12.3	1.7
85269200	Radio remote control apparatus	11.4	1.6
90181200	Ultrasonic scanning apparatus	10.2	1.5
85253000	Television cameras	9.7	1.4
90158000	Surveying, hydrographic, oceanographic, meteorological or geophysical inst nes	9.4	1.3
84713000	Portable digital auto data process machines weighing 710 kg with CPU, keyboard & disp	9.3	1.3
84715000	Digital process units o/t 8471.41/49,w/n cntg in same housing storage/input/output	9.1	1.3
90278000	Instruments and apparatus for physical or chemical analysis, nes	9.0	1.3
90303900	Inst & app, for measuring or checking voltage, current, etc without a recording device	8.6	1.2
90189000	Instruments and appliances used in medical or veterinary sciences, nes	8.1	1.2
90319000	Parts and accessories for measuring or checking inst, appl and machines, nes	8.0	1.1
84716000	Input or output units, whether or not containing storage units in the same housing	7.8	1.1
90304000	Instruments and apparatus, specially designed for telecommunications nes	6.7	0.9
Subtotal		566.9	80.5
	All Other High Technology Commodities	137.0	19.5
Total		703.9	100.0

HS code = Harmonized System commodity code; NES=Not Elsewhere Specified

1. Commodity descriptions are drawn from the approved Harmonized System coding manual.

They contain abbreviations that have been left in the original form in this table.

^a Preliminary

Source: BC Stats and Statistics Canada

Table 24. Top 25 High Technology Import Commodities, 2005^a

HS Code	Commodity Description ¹	Value (\$000,000)	% Total Imports
8525200092	Cellular telephones other than designed for installation in motor vehicles	218.1	4.7
8471300000	Portable digital auto data process mach, not more than 10 kg, w CPU, keybrd & display	215.0	4.6
8471500090	Digital process units, o/t 8471.41/49, w/n cntg strg,input/output o/t w CRT, nes	188.9	4.1
8802400014	Airplanes,passenger, non military, of an unladen weight >15000kg,new	181.5	3.9
8473302000	Printed circuit assemblies of the machines of heading 84.71 ²	164.3	3.5
8803300000	Parts of airplanes or helicopters nes	150.1	3.2
8542219011	Unmounted chips, dice and wafers, silicon, metal oxide semicon (MOS)	131.5	2.8
3004900079	Medicaments nes, for human use, in dosage	127.9	2.8
8525400010	Still image video cameras and other video camera recorders, colour	120.5	2.6
8517901030	Parts, printed circuit asy, of goods of TI 8517.11.00, 8517.19.10, 8517.19.90,etc. ³	112.7	2.4
8471801000	Control or adapter units, o/t form of system	110.7	2.4
8473309000	Pts & access (o/t printed circuit asy) of the machines of heading 84.71, nes	110.0	2.4
8528128300	Colour, high definition, television receivers, with flat panel screen, nes	82.9	1.8
8471603900	Other display units, other than system, nes	74.3	1.6
8521901000	Laser video disc players, w/n incorp video tuner	71.4	1.5
8473301000	Pts, o/t printed circuit asy, of printers w/n cntg storage units in same housing	58.7	1.3
8471700013	Other hard magnetic disk drive units, o/t presented in form of system	55.0	1.2
8517901040	Printed circuit assemblies of goods of TI 8517.22.00, 8517.30.20, 8517.50.49, 8517.80.1	53.2	1.1
8526920090	Radio remote control apparatus, nes	50.3	1.1
8471491090	Digital process units,w/n cntg in same hsgng, strg unit,in/output,o/t with CRT,nes	50.2	1.1
8528129600	Colour television receivers, with flat panel screen, nes	48.8	1.0
8524310011	Rec magnetic discs, software, prepackd,for aut data processing mach, sold retail	48.0	1.0
8524391000	Recorded discs (software),for reproducing image only, other than magnetic, nes	46.6	1.0
8526900099	Radio navigational aid apparatus, nes	46.4	1.0
8529901940	Printed circuit asy of goods of TI 8526.10.00, 8526.91.00, 8527.12.90, 8527.13.90 etc. ⁵	42.8	0.9
Subtotal		2,559.5	55.0
	All Other High Technology Commodities	2,090.1	45.0
Total		4,649.6	100.0

HS code = Harmonized System commodity code; NES=Not Elsewhere Specified

1. Commodity descriptions are drawn from the approved Harmonized System coding manual.

They contain some abbreviations that have been left in the original form in this table.

2. Refers to automatic data processing machines, magnetic or optical readers, etc.

3. Refers to telephone sets, videophones.

4. Refers to teleprinters, telegraphic switching apparatus, other telegraphic apparatus

5. Refers to radar apparatus, radio navigational apparatus, pagers, etc.

^a Preliminary

Source: BC Stats and Statistics Canada

Table 25. Domestic Exports of High Technology Goods and Total Goods, by Destination 1995-2005

	Value (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p
High Technology Exports¹											
United States	286.4	288.7	414.4	596.6	680.0	773.0	596.4	558.1	506.6	509.1	486.0
Mexico	1.1	0.9	0.6	1.1	3.1	0.9	0.9	1.7	1.9	3.6	4.6
European Union	32.9	29.6	33.4	58.5	53.7	60.2	87.5	58.1	51.3	65.1	69.9
United Kingdom	6.1	8.7	7.9	6.9	6.9	13.0	20.4	21.9	16.0	19.3	15.4
France	4.6	2.6	5.9	6.6	6.7	1.5	5.3	4.0	4.7	9.5	7.9
Germany	5.0	5.0	4.5	13.7	6.2	5.2	7.1	7.3	8.0	9.5	10.4
Italy	0.8	3.2	0.6	2.5	2.2	18.5	31.6	2.9	3.6	4.6	9.4
Netherlands	6.8	3.2	8.2	11.3	9.1	5.0	5.2	2.8	3.4	6.0	6.8
Pacific Rim	72.1	106.2	114.6	96.1	83.8	66.8	33.3	47.2	42.3	66.2	97.4
Hong Kong	25.8	13.6	21.9	32.0	12.0	6.5	6.2	3.3	6.2	10.9	14.9
Mainland China	3.3	16.4	20.1	27.1	17.7	2.3	3.0	4.1	10.3	14.4	23.3
Japan	13.6	18.7	19.3	8.6	5.2	30.4	9.7	22.0	7.3	11.1	20.0
South Korea	8.1	8.7	16.7	4.6	11.9	9.1	6.2	4.3	2.5	7.6	8.1
Taiwan	4.0	8.7	12.2	14.9	24.2	4.3	2.2	4.3	5.8	3.1	7.5
All Other Countries	14.3	25.2	18.3	16.9	19.4	22.1	30.0	19.5	33.0	42.4	46.0
Total	406.8	450.6	581.4	769.2	840.1	923.1	748.1	684.6	635.2	686.4	703.9
Total Exports											
United States	13,288.0	13,895.1	14,863.1	16,375.0	19,370.7	22,197.6	22,104.4	19,665.8	18,792.3	20,121.2	22,076.4
Mexico	54.6	50.5	61.9	60.7	42.2	57.7	83.2	79.0	107.3	197.2	237.0
European Union	2,887.4	1,973.5	2,080.7	2,016.2	1,931.1	2,581.5	2,137.3	1,817.4	1,845.2	2,140.9	2,439.5
United Kingdom	377.7	336.4	288.7	302.5	319.2	381.2	355.0	337.0	302.4	340.2	421.0
France	317.6	182.3	183.5	175.8	167.1	167.9	149.7	161.9	177.6	189.5	189.5
Germany	694.4	409.1	475.6	395.6	299.7	534.5	382.4	320.9	364.3	415.5	470.6
Italy	646.1	435.5	474.1	439.1	445.6	617.1	532.8	428.6	460.7	457.6	565.9
Netherlands	184.8	164.1	204.3	251.5	235.3	174.6	211.9	222.8	227.8	324.9	300.7
Pacific Rim	9,857.5	9,226.4	9,023.7	6,969.7	7,179.8	8,176.9	6,582.5	6,528.8	6,598.7	7,493.1	8,077.6
Hong Kong	270.6	258.3	352.0	272.2	280.7	299.0	217.8	207.7	179.6	254.2	213.2
Mainland China	500.6	514.1	455.5	464.5	593.2	740.7	726.8	756.3	907.8	1,263.0	1,325.4
Japan	6,764.6	6,403.8	6,003.4	4,548.5	4,468.3	4,890.8	4,066.1	3,858.5	3,649.7	3,799.3	4,163.5
South Korea	979.5	866.1	953.2	678.0	754.6	930.4	712.2	725.1	772.1	909.2	1,168.1
Taiwan	482.0	354.3	457.3	399.6	375.9	421.9	314.9	339.3	428.1	482.2	498.8
All Other Countries	805.7	619.4	731.3	623.5	589.5	738.5	772.2	737.4	845.8	1,025.3	1,311.4
Total	26,893.1	25,764.8	26,760.7	26,045.1	29,113.3	33,752.2	31,679.7	28,828.4	28,189.3	30,977.6	34,141.9
% change from previous year											
	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p	
High Technology Exports											
United States	0.8	43.5	44.0	14.0	13.7	-22.8	-6.4	-9.2	0.5	-4.5	
Mexico	-21.5	-32.2	76.5	191.4	-69.9	-5.8	93.4	9.5	88.7	30.2	
European Union	-9.9	12.8	75.3	-8.2	12.2	45.2	-33.6	-11.8	27.0	7.3	
United Kingdom	44.0	-9.0	-13.1	0.2	87.7	57.4	7.3	-26.8	20.6	-20.6	
France	-42.4	125.2	11.5	0.8	-77.6	253.7	-24.1	17.3	102.7	-17.5	
Germany	0.3	-10.1	201.7	-54.4	-15.9	34.8	3.4	9.9	18.1	9.9	
Italy	278.4	-82.7	355.6	-11.3	725.8	70.8	-90.7	23.2	26.7	104.1	
Netherlands	-52.8	156.4	37.1	-19.4	-44.6	4.2	-45.9	20.2	75.4	13.6	
Pacific Rim	47.3	8.0	-16.1	-12.8	-20.3	-50.1	41.5	-10.3	56.4	47.1	
Hong Kong	-47.1	60.8	46.3	-62.4	-45.7	-5.2	-46.3	86.6	74.6	37.0	
Mainland China	400.6	23.1	34.9	-34.9	-87.0	29.5	36.6	152.5	39.6	61.8	
Japan	37.6	2.9	-55.4	-39.5	483.0	-68.0	127.1	-66.6	50.5	80.8	
South Korea	6.5	92.6	-72.2	157.9	-23.9	-31.5	-31.5	-41.3	205.8	6.0	
Taiwan	115.0	40.7	21.6	62.7	-82.4	-48.1	94.4	34.2	-46.0	139.9	
All Other Countries	75.9	-27.4	-7.6	14.9	13.9	35.8	-35.2	69.8	28.3	8.5	
Total Growth	10.8	29.0	32.3	9.2	9.9	-19.0	-8.5	-7.2	8.1	2.6	
Total Exports											
United States	4.6	7.0	10.2	18.3	14.6	-0.4	-11.0	-4.4	7.1	9.7	
Mexico	-7.5	22.8	-2.0	-30.5	36.7	44.3	-5.1	35.8	83.8	20.2	
European Union	-31.7	5.4	-3.1	-4.2	33.7	-17.2	-15.0	1.5	16.0	13.9	
United Kingdom	-10.9	-14.2	4.8	5.5	19.4	-6.9	-5.1	-10.3	12.5	23.8	
France	-42.6	0.6	-4.2	-4.9	29.9	-22.6	-10.9	8.1	9.7	6.7	
Germany	-41.1	16.2	-16.8	-24.2	78.4	-28.5	-16.1	13.5	14.1	13.2	
Italy	-32.6	8.9	-7.4	1.5	38.5	-13.7	-19.6	7.5	-0.7	23.7	
Netherlands	-11.2	24.6	23.1	-6.4	-25.8	21.3	5.1	2.3	42.6	-7.5	
Pacific Rim	-6.4	-2.2	-22.8	3.0	13.9	-19.5	-0.8	1.1	13.6	7.8	
Hong Kong	-4.5	36.3	-22.7	3.1	6.5	-27.2	-4.6	-13.5	41.6	-16.1	
Mainland China	2.7	-11.4	2.0	27.7	24.9	-1.9	4.1	20.0	39.1	4.9	
Japan	-5.3	-6.3	-24.2	-1.8	9.5	-16.9	-5.1	-5.4	4.1	9.6	
South Korea	-11.6	10.1	-28.9	11.3	23.3	-23.5	1.8	6.5	17.8	28.5	
Taiwan	-26.5	29.1	-12.6	-5.9	12.2	-25.4	7.8	26.2	12.6	3.4	
All Other Countries	-23.1	18.1	-14.7	-5.4	25.3	4.6	-4.5	14.7	21.2	27.9	
Total Growth	-4.2	3.9	-2.7	11.8	15.9	-6.1	-9.0	-2.2	9.9	10.2	

1. High technology exports reflect exports of high technology commodities produced by the manufacturing portion of the high technology sector; exports from the high technology service industries are not included.

^r Revised

^p Preliminary

Source: BC Stats and Statistics Canada

Table 26. Imports of High Technology, by Country of Origin, 1995-2005

	Value (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p
United States	1,627.4	1,740.0	2,103.6	2,319.2	2,305.6	2,386.0	2,232.6	2,041.8	1,897.0	1,889.6	1,850.8
Mexico	60.5	72.6	84.5	88.7	126.3	169.4	203.9	240.7	251.3	326.4	382.0
European Union	258.9	306.3	511.1	499.9	668.4	658.0	779.3	677.5	487.2	464.0	410.9
United Kingdom	81.7	84.5	89.2	102.6	144.0	324.2	165.8	152.0	146.1	146.7	121.2
France	57.0	109.2	284.1	243.5	360.9	145.9	360.1	251.2	114.9	91.5	54.2
Germany	45.9	49.5	49.9	58.5	69.1	70.7	106.7	86.8	82.6	97.2	95.6
Italy	20.7	9.4	13.5	13.9	11.0	11.4	35.7	56.2	32.8	24.1	16.7
Netherlands	8.5	7.9	7.1	7.9	8.4	12.7	17.9	27.5	12.7	12.5	14.0
Pacific Rim	690.7	608.0	830.8	913.9	936.7	977.6	915.7	1,054.6	1,256.7	1,514.2	1,686.8
Hong Kong	20.2	13.7	20.4	17.6	20.7	18.8	13.1	12.9	13.1	9.0	11.1
Mainland China	27.6	32.5	46.0	53.6	71.2	101.2	144.7	223.0	363.9	543.9	712.1
Japan	281.0	232.5	303.7	319.6	320.5	316.1	272.0	276.6	269.4	278.2	295.9
South Korea	100.5	69.0	80.0	75.7	77.3	99.5	86.3	94.9	142.2	169.1	174.5
Taiwan	68.3	76.7	123.0	160.7	175.2	165.4	157.6	159.4	140.0	149.1	143.8
All Other Countries	119.8	116.1	128.8	156.4	212.4	284.0	349.1	291.4	213.0	242.4	319.1
Total Value	2,757.2	2,842.9	3,658.8	3,978.1	4,249.3	4,475.0	4,480.6	4,306.1	4,105.2	4,436.6	4,649.6

	% change from previous year										
	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p	
United States	6.9	20.9	10.3	-0.6	3.5	-6.4	-8.5	-7.1	-0.4	-2.1	
Mexico	20.0	16.5	5.0	42.3	34.1	20.4	18.0	4.4	29.9	17.0	
European Union	18.3	66.9	-2.2	33.7	-1.6	18.4	-13.1	-28.1	-4.8	-11.4	
United Kingdom	3.3	5.6	15.0	40.4	125.1	-48.9	-8.3	-3.9	0.4	-17.3	
France	91.5	160.3	-14.3	48.2	-59.6	146.8	-30.3	-54.3	-20.3	-40.8	
Germany	8.0	0.8	17.1	18.1	2.4	50.8	-18.6	-4.8	17.6	-1.7	
Italy	-54.9	44.4	3.2	-21.2	3.3	214.8	57.4	-41.6	-26.5	-30.6	
Netherlands	-7.0	-10.7	11.4	6.5	50.5	41.5	53.8	-53.8	-1.5	11.7	
Pacific Rim	-12.0	36.6	10.0	2.5	4.4	-6.3	15.2	19.2	20.5	11.4	
Hong Kong	-32.3	49.5	-13.9	17.8	-9.4	-30.2	-1.7	1.7	-31.5	24.0	
Mainland China	17.9	41.5	16.4	32.9	42.1	42.9	54.1	63.2	49.5	30.9	
Japan	-17.2	30.6	5.2	0.3	-1.4	-14.0	1.7	-2.6	3.2	6.4	
South Korea	-31.4	15.9	-5.4	2.2	28.7	-13.2	10.0	49.8	18.9	3.2	
Taiwan	12.4	60.3	30.6	9.0	-5.6	-4.7	1.1	-12.2	6.5	-3.6	
All Other Countries	-3.1	11.0	21.4	35.8	33.7	22.9	-16.5	-26.9	13.8	31.6	
Total Growth	3.1	28.7	8.7	6.8	5.3	0.1	-3.9	-4.7	8.1	4.8	

^r Revised^p Preliminary

Source: BC Stats

Table 27. Balance of Trade in High Technology Goods, by Country, 1995-2005

	Balance (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p
United States	-1,189.0	-1,247.6	-1,497.3	-1,468.1	-1,228.2	-814.2	-1,364.5	-1,248.2	-1,168.9	-1,149.6	-1,120.0
Mexico	-59.3	-71.6	-83.9	-87.6	-122.9	-168.4	-202.7	-237.0	-247.6	-319.4	-373.9
European Union	-221.6	-271.2	-468.7	-432.0	-596.1	-546.4	-661.4	-596.1	-400.6	-354.9	-276.9
United Kingdom	-74.9	-73.1	-78.1	-93.0	-133.8	-299.1	-121.9	-119.8	-115.5	-105.3	-86.2
France	-52.0	-105.9	-276.3	-234.7	-345.3	-128.6	-354.2	-245.8	-109.7	-78.6	-44.4
Germany	-38.6	-43.5	-43.5	-43.4	-60.2	-55.0	-98.4	-73.4	-69.8	-83.0	-65.0
Italy	-19.8	-6.1	-12.7	-11.2	-8.5	7.2	-1.4	-52.0	-28.9	-18.9	-7.2
Netherlands	-1.3	-4.4	1.3	4.3	1.7	-7.6	-12.6	-24.3	-7.0	-5.9	0.6
Pacific Rim	-601.6	-484.2	-686.3	-779.5	-793.9	-758.9	-805.7	-950.2	-1,093.5	-1,275.3	-1,383.9
Hong Kong	8.8	4.7	7.6	30.7	10.9	39.2	28.3	11.2	25.4	39.7	68.1
Mainland China	-24.3	-16.1	-25.7	-25.7	-52.1	-88.4	-134.5	-215.5	-331.6	-515.1	-676.4
Japan	-256.9	-207.8	-275.9	-304.3	-303.3	-244.3	-246.7	-239.7	-240.1	-244.3	-244.8
South Korea	-90.9	-55.9	-58.7	-67.8	-55.3	-80.5	-75.6	-85.5	-132.9	-146.8	-157.6
Taiwan	-63.2	-67.6	-109.5	-140.3	-147.2	-156.4	-151.6	-154.1	-132.2	-139.4	-126.8
All Other Countries	-101.2	-82.8	-106.1	-137.5	-186.2	-249.7	-311.0	-265.6	-173.4	-173.8	-222.1
Total	-2,172.7	-2,157.4	-2,842.3	-2,904.7	-2,927.3	-2,537.5	-3,345.2	-3,297.0	-3,084.0	-3,273.0	-3,376.7

Note: The trade balance is the net of total exports minus total imports. Total exports include re-exports, whereas domestic exports are shipments of goods produced within Canada only (in the case of tables in this report, within BC only).

^r Revised^p Preliminary

Source: BC Stats

Table 28. Domestic Exports of High Technology Goods, by Commodity Group, 1995-2005

	Value (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p
Biotechnology	2.0	0.8	1.0	2.2	2.4	1.5	1.6	1.7	2.0	4.3	7.9
Life Sciences	26.1	30.5	46.0	55.3	69.4	82.0	94.8	186.2	200.8	210.5	140.2
Opto-Electronics	22.4	24.7	35.6	51.4	91.5	167.5	121.1	70.9	35.3	34.0	35.7
Computers and Telecommunications	236.5	292.0	374.3	443.2	399.9	318.6	259.8	262.3	243.1	259.4	285.1
Electronics	12.3	17.5	17.1	13.0	9.5	14.2	18.1	4.6	4.1	8.9	15.4
Computer Integrated Manufacturing	33.4	32.0	37.4	40.8	44.5	51.6	56.3	47.5	62.5	97.4	104.2
Material Design	18.5	0.9	13.7	57.7	94.0	178.6	71.0	3.2	1.5	1.4	1.9
Aerospace	53.1	50.6	52.4	101.2	126.6	102.9	118.9	104.5	83.9	69.1	109.6
Weapons and Nuclear	2.4	1.5	4.0	4.4	2.3	6.3	6.5	3.9	2.0	1.4	4.1
Total	406.8	450.6	581.4	769.2	840.1	923.1	748.1	684.6	635.2	686.4	703.9
	% change from previous year										
	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p	
Biotechnology	-60.1	21.6	128.5	8.9	-37.9	5.0	5.7	19.6	112.0	84.4	
Life Sciences	16.7	50.8	20.3	25.5	18.1	15.7	96.3	7.8	4.8	-33.4	
Opto-Electronics	10.2	44.5	44.4	78.0	82.9	-27.7	-41.5	-50.3	-3.6	4.9	
Computers and Telecommunications	23.5	28.2	18.4	-9.8	-20.3	-18.5	0.9	-7.3	6.7	9.9	
Electronics	42.4	-2.4	-23.8	-26.8	48.5	27.6	-74.7	-9.7	114.3	72.9	
Computer Integrated Manufacturing	-4.1	16.8	9.1	9.1	15.9	9.2	-15.7	31.6	55.9	7.0	
Material Design	-94.9	1351.2	321.9	63.0	90.0	-60.3	-95.5	-53.1	-2.5	29.5	
Aerospace	-4.7	3.5	93.2	25.1	-18.7	15.6	-12.1	-19.7	-17.7	58.7	
Weapons and Nuclear	-37.6	159.2	10.2	-47.8	178.5	2.0	-40.2	-48.1	-29.9	191.0	
Total	10.8	29.0	32.3	9.2	9.9	-19.0	-8.5	-7.2	8.1	2.6	

^f Revised^p Preliminary

Source: BC Stats

Table 29. Imports of High Technology Goods, by Commodity Group, 1995-2005

	Value (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p
Biotechnology	21.7	24.6	21.6	32.5	33.8	33.7	57.6	49.3	42.5	37.8	40.6
Life Sciences	253.6	267.6	276.1	313.9	367.5	448.6	506.7	497.9	473.5	493.4	496.4
Opto-Electronics	72.8	78.1	96.3	97.4	93.6	121.8	123.7	117.2	106.7	126.4	186.7
Computers and Telecommunications	1,464.2	1,463.1	1,940.3	2,132.9	2,087.3	2,432.6	2,340.0	2,384.9	2,513.7	2,751.1	2,784.5
Electronics	476.7	371.7	545.2	680.0	676.9	547.7	333.4	367.8	324.7	390.5	424.2
Computer Integrated Manufacturing	154.5	145.2	183.3	133.8	153.0	186.9	166.3	189.6	200.5	195.9	183.0
Material Design	27.8	31.0	33.2	62.5	141.0	133.0	83.1	37.1	25.4	25.9	25.4
Aerospace	256.2	427.0	532.7	501.1	672.0	539.6	835.3	633.3	383.8	367.0	488.3
Weapons and Nuclear	29.7	34.7	30.2	24.1	24.2	31.2	34.5	29.1	34.3	39.5	20.5
Total	2,757.2	2,842.9	3,658.8	3,978.1	4,249.3	4,475.0	4,480.6	4,306.1	4,105.2	4,436.6	4,649.6
	% change from previous year										
	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p	
Biotechnology	13.2	-12.3	50.6	4.2	-0.4	71.0	-14.4	-13.8	-11.0	7.2	
Life Sciences	5.5	3.2	13.7	17.1	22.1	13.0	-1.8	-4.9	4.2	0.6	
Opto-Electronics	7.2	23.3	1.2	-3.9	30.0	1.6	-5.3	-9.0	18.5	47.6	
Computers and Telecommunications	-0.1	32.6	9.9	-2.1	16.5	-3.8	1.9	5.4	9.4	1.2	
Electronics	-22.0	46.7	24.7	-0.5	-19.1	-39.1	10.3	-11.7	23.0	6.2	
Computer Integrated Manufacturing	-6.0	26.2	-27.0	14.3	22.1	-11.0	14.0	5.8	-2.3	-6.6	
Material Design	11.3	7.0	88.5	125.5	-5.7	-37.5	-55.3	-31.5	1.9	-1.9	
Aerospace	66.7	24.7	-5.9	34.1	-19.7	54.8	-24.2	-39.4	-4.4	33.1	
Weapons and Nuclear	16.7	-12.9	-20.1	0.3	29.1	10.6	-15.7	17.8	15.2	-48.1	
Total	3.1	28.7	8.7	6.8	5.3	0.1	-3.9	-4.7	8.1	4.8	

^f Revised^p Preliminary

Source: BC Stats

Table 30. Balance of Trade in High Technology Goods, by Commodity Group, 1995-2005

	Balance (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p
Biotechnology	-19.7	-23.7	-20.6	-30.2	-31.4	-32.2	-56.0	-47.6	-40.5	-33.6	-32.6
Life Sciences	-225.9	-235.9	-228.6	-256.8	-295.1	-363.5	-409.3	-307.6	-267.0	-275.4	-346.8
Opto-Electronics	-49.7	-51.6	-58.1	-44.9	-0.5	48.4	0.9	-42.8	-69.8	-89.6	-147.1
Computers and Telecommunications	-1,157.6	-1,087.5	-1,487.2	-1,621.8	-1,621.5	-2,032.5	-2,004.3	-2,043.9	-2,194.8	-2,417.7	-2,408.3
Electronics	-424.7	-286.3	-413.7	-455.0	-302.6	334.4	-51.3	-177.8	-82.8	-87.5	-61.5
Computer Integrated Manufacturing	-118.6	-110.5	-143.7	-90.7	-105.4	-127.2	-101.8	-137.4	-128.6	-87.6	-68.9
Material Design	-9.3	-29.4	-19.5	-4.8	-46.8	46.0	-7.5	-32.2	-22.0	-24.1	-21.5
Aerospace	-140.3	-299.5	-445.1	-382.5	-503.6	-388.1	-688.4	-483.3	-246.9	-222.7	-274.2
Weapons and Nuclear	-26.9	-32.9	-25.8	-17.9	-20.4	-22.7	-27.4	-24.3	-31.5	-34.8	-15.7
Total	-2,172.7	-2,157.4	-2,842.3	-2,904.7	-2,927.3	-2,537.5	-3,345.2	-3,297.0	-3,084.0	-3,273.0	-3,376.7

Note: The trade balance is the net of total exports minus total imports. Total exports include re-exports, whereas domestic exports are shipments of goods produced within Canada only (in the case of tables in this report, within BC only).

^f Revised^p Preliminary

Source: BC Stats

Table 31. Domestic Exports of High Technology Goods to the United States, by Commodity Group, 1995-2005

	Value (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Biotechnology	0.4	0.6	0.6	0.7	0.7	0.6	1.5	1.6	1.4	1.8	3.3
Life Sciences	16.8	23.6	40.0	45.4	59.6	71.5	85.8	167.6	174.5	172.2	103.4
Opto-Electronics	16.1	16.3	24.7	40.5	77.5	135.3	89.8	54.2	25.3	22.1	19.9
Computers and Telecommunications	151.0	173.1	244.7	314.8	285.0	250.9	206.7	219.0	186.4	197.4	203.0
Electronics	9.1	8.7	10.3	7.5	6.7	9.9	14.4	2.3	2.5	3.2	4.0
Computer Integrated Manufacturing	26.2	25.6	29.6	32.2	35.7	40.9	49.5	39.0	45.4	56.1	62.5
Material Design	18.2	0.8	13.7	57.3	93.9	178.3	50.3	3.1	1.2	1.3	1.5
Aerospace	47.8	39.4	47.3	94.2	120.2	83.9	92.5	70.0	69.1	54.5	88.2
Weapons and Nuclear	0.8	0.6	3.5	4.0	0.8	1.7	6.0	1.3	0.8	0.4	0.2
Total	286.4	288.7	414.4	596.6	680.0	773.0	596.4	558.1	506.6	509.1	486.0

	% change from previous year										
	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p	
Biotechnology	70.4	-0.5	10.5	2.3	-9.6	135.6	7.8	-12.9	32.6	83.2	
Life Sciences	41.0	69.4	13.4	31.4	20.0	19.9	95.5	4.1	-1.3	-40.0	
Opto-Electronics	1.2	51.3	64.0	91.2	74.6	-33.6	-39.7	-53.4	-12.5	-10.1	
Computers and Telecommunications	14.6	41.4	28.6	-9.5	-12.0	-17.6	6.0	-14.9	5.9	2.8	
Electronics	-3.9	18.2	-27.5	-10.4	48.4	45.3	-84.1	8.9	29.0	25.4	
Computer Integrated Manufacturing	-2.5	15.7	8.8	10.8	14.6	21.1	-21.2	16.5	23.5	11.3	
Material Design	-95.8	1666.4	319.3	63.9	89.9	-71.8	-93.8	-63.2	13.6	14.6	
Aerospace	-17.6	20.1	99.1	27.6	-30.2	10.3	-24.4	-1.2	-21.1	61.8	
Weapons and Nuclear	-21.4	451.1	16.5	-79.7	101.3	261.3	-78.5	-37.2	-50.2	-43.1	
Total	0.8	43.5	44.0	14.0	13.7	-22.8	-6.4	-9.2	0.5	-4.5	

^r Revised^p Preliminary

Source: BC Stats

Table 32. Imports of High Technology Goods from the United States, by Commodity Group, 1995-2005

	Value (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Biotechnology	12.5	12.3	11.2	17.2	21.6	16.2	21.8	21.5	19.9	19.4	19.4
Life Sciences	164.2	167.8	160.4	190.5	225.5	276.0	300.0	296.7	263.7	269.6	254.3
Opto-Electronics	34.1	37.8	50.2	50.7	47.6	59.5	51.9	45.2	31.7	37.3	30.8
Computers and Telecommunications	896.1	921.1	1,220.0	1,351.5	1,195.4	1,305.7	1,173.2	1,079.2	1,062.2	1,019.6	956.0
Electronics	189.4	169.2	253.3	312.2	298.8	238.7	154.9	177.6	145.3	174.3	205.2
Computer Integrated Manufacturing	107.5	101.0	139.6	99.6	115.2	137.3	119.4	130.3	131.2	127.7	106.1
Material Design	23.3	27.3	29.5	56.8	125.9	104.2	51.2	28.5	18.4	17.6	16.9
Aerospace	183.1	284.9	220.2	225.4	260.2	229.2	338.8	243.6	201.9	202.0	252.1
Weapons and Nuclear	17.2	18.5	19.1	15.3	15.3	19.2	21.4	19.3	22.7	22.2	10.1
Total	1,627.4	1,740.0	2,103.6	2,319.2	2,305.6	2,386.0	2,232.6	2,041.8	1,897.0	1,889.6	1,850.8

	% change from previous year										
	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p	
Biotechnology	-1.1	-8.9	53.3	25.5	-25.1	34.6	-1.6	-7.3	-2.7	0.0	
Life Sciences	2.2	-4.4	18.7	18.4	22.4	8.7	-1.1	-11.1	2.2	-5.7	
Opto-Electronics	10.9	32.6	1.1	-6.0	25.0	-12.8	-12.8	-29.9	17.5	-17.4	
Computers and Telecommunications	2.8	32.5	10.8	-11.5	9.2	-10.1	-8.0	-1.6	-4.0	-6.2	
Electronics	-10.6	49.7	23.3	-4.3	-20.1	-35.1	14.6	-18.2	20.0	17.7	
Computer Integrated Manufacturing	-6.0	38.2	-28.7	15.7	19.2	-13.1	9.2	0.7	-2.7	-17.0	
Material Design	17.3	8.1	92.5	121.7	-17.3	-50.9	-44.3	-35.5	-4.1	-4.1	
Aerospace	55.5	-22.7	2.3	15.4	-11.9	47.8	-28.1	-17.1	0.0	24.9	
Weapons and Nuclear	7.6	3.1	-20.0	0.0	25.7	11.2	-10.0	17.8	-2.4	-54.5	
Total	6.9	20.9	10.3	-0.6	3.5	-6.4	-8.5	-7.1	-0.4	-2.1	

^r Revised^p Preliminary

Source: BC Stats

Table 33. Balance of Trade in High Technology Goods with the United States, by Commodity Group, 1995-2005

	Balance (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Biotechnology	-12.1	-11.7	-10.6	-16.6	-20.9	-15.6	-20.3	-19.9	-18.5	-17.5	-15.9
Life Sciences	-146.0	-143.2	-119.4	-143.6	-163.1	-201.6	-212.0	-126.0	-85.3	-91.8	-145.8
Opto-Electronics	-17.5	-20.3	-23.6	-9.2	31.3	78.2	41.0	11.1	-5.3	-13.0	-7.8
Computers and Telecommunications	-681.0	-675.7	-910.9	-978.8	-856.0	-987.6	-900.6	-791.3	-815.9	-761.5	-683.4
Electronics	-147.8	-106.9	-150.2	-128.2	9.8	456.5	33.8	-49.5	-35.8	-33.6	-65.1
Computer Integrated Manufacturing	-78.9	-73.0	-107.9	-65.1	-76.6	-88.4	-62.0	-87.0	-77.3	-63.8	-36.7
Material Design	-5.1	-25.9	-15.8	0.6	-31.8	74.5	1.6	-23.7	-15.5	-16.1	-15.2
Aerospace	-84.3	-173.1	-143.7	-117.7	-107.6	-114.3	-231.2	-144.8	-93.6	-130.7	-140.5
Weapons and Nuclear	-16.3	-17.8	-15.3	-9.5	-13.3	-15.8	-14.8	-17.1	-21.7	-21.6	-9.6
Total	-1,189.0	-1,247.6	-1,497.3	-1,468.1	-1,228.2	-814.2	-1,364.5	-1,248.2	-1,168.9	-1,149.6	-1,120.0

Note: The trade balance is the net of total exports minus total imports. Total exports include re-exports, whereas domestic exports are shipments of goods produced within Canada only (in the case of tables in this report, within BC only).

^r Revised^p Preliminary

Source: BC Stats

Table 34. Domestic Exports of High Technology Goods to the Pacific Rim, by Commodity Group, 1995-2005

	Value (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Biotechnology	0.1	0.2	0.0	0.0	0.0	0.3	0.0	0.0	0.1	0.5	0.7
Life Sciences	6.5	3.7	2.8	2.6	3.5	4.0	2.8	1.9	4.9	7.7	13.1
Opto-Electronics	1.8	2.3	1.6	1.3	2.3	11.9	4.3	11.0	4.4	4.8	8.7
Computers and Telecommunications	55.2	88.5	98.7	80.4	68.7	37.8	18.4	14.5	20.1	29.4	39.9
Electronics	1.9	4.9	4.4	3.8	2.1	3.2	2.6	1.7	1.1	3.2	10.3
Computer Integrated Manufacturing	4.8	3.5	4.6	5.8	5.3	5.3	3.4	3.4	6.8	14.3	14.7
Material Design	0.3	0.1	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Aerospace	1.3	2.3	2.3	2.1	1.5	2.2	1.6	13.1	4.0	6.0	6.2
Weapons and Nuclear	0.3	0.6	0.4	0.1	0.4	2.0	0.1	1.7	0.9	0.3	3.8
Total	72.1	106.2	114.6	96.1	83.8	66.8	33.3	47.2	42.3	65.2	97.4
	% change from previous year										
	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p	
Biotechnology	165.8	-100.0	-	42.5	1624.6	-91.7	-77.4	2547.2	235.8	46.5	
Life Sciences	-42.3	-26.0	-5.0	33.7	15.2	-30.3	-33.0	159.8	57.7	68.9	
Opto-Electronics	27.0	-33.1	-16.0	75.7	418.2	-64.2	157.3	-60.2	9.2	82.0	
Computers and Telecommunications	60.2	11.6	-18.6	-14.4	-45.0	-51.3	-21.3	38.9	46.2	35.8	
Electronics	162.4	-10.5	-13.6	-45.7	54.5	-20.1	-35.2	-35.3	194.3	225.9	
Computer Integrated Manufacturing	-27.2	30.5	26.7	-8.4	0.0	-35.2	-1.6	101.2	111.0	2.7	
Material Design	-50.7	-96.7	2707.5	-100.0	-	830.4	-96.5	642.9	19.5	-43.4	
Aerospace	77.6	-0.3	-10.0	-28.5	-49.8	-26.3	699.1	-69.2	47.9	4.2	
Weapons and Nuclear	150.1	-43.6	-82.8	563.3	390.5	-96.6	2424.9	-50.2	-60.2	1003.7	
Total	47.3	8.0	-16.1	-12.8	-20.3	-50.1	41.5	-10.3	56.4	47.1	

^r Revised^p Preliminary

Source: BC Stats

Table 35. Imports of High Technology Goods from the Pacific Rim, by Commodity Group, 1995-2005

	Value (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Biotechnology	0.4	0.5	0.3	1.3	2.2	3.0	2.0	1.3	1.3	1.3	0.8
Life Sciences	20.6	23.4	19.3	18.8	25.8	28.0	35.5	31.7	32.0	37.9	36.8
Opto-Electronics	34.6	34.5	41.2	41.4	40.1	53.5	58.9	56.1	60.5	69.7	97.5
Computers and Telecommunications	420.2	389.6	532.1	573.1	589.8	623.7	642.7	783.2	983.8	1,199.1	1,318.6
Electronics	183.8	130.5	206.7	243.2	231.9	212.5	122.7	138.4	128.6	163.3	162.4
Computer Integrated Manufacturing	24.3	20.7	22.1	18.5	20.9	25.6	20.2	24.8	34.4	28.0	38.1
Material Design	2.5	1.6	1.4	1.9	8.7	12.4	13.6	2.7	2.0	2.0	2.5
Aerospace	3.0	5.6	6.1	14.4	16.0	17.1	17.9	14.4	11.3	20.2	27.7
Weapons and Nuclear	1.3	1.6	1.6	1.4	1.5	1.7	2.2	2.1	2.7	2.7	2.4
Total	690.7	608.0	830.8	913.9	936.7	977.6	915.7	1,054.6	1,256.7	1,514.2	1,686.8

	% change from previous year										
	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p	
Biotechnology	36.2	-33.0	308.8	63.2	39.6	-34.8	-34.6	3.7	-6.0	-32.6	
Life Sciences	13.6	-17.9	-2.4	37.1	8.8	26.6	-10.8	1.1	18.5	-2.9	
Opto-Electronics	-0.4	19.3	0.5	-3.2	33.7	10.1	-4.9	8.0	15.1	40.0	
Computers and Telecommunications	-7.3	36.6	7.7	2.9	5.8	3.0	21.9	25.6	20.9	10.9	
Electronics	-29.0	58.4	17.6	-4.6	-8.4	-42.3	12.8	-7.1	27.0	-0.6	
Computer Integrated Manufacturing	-14.9	6.7	-16.2	12.8	22.3	-21.1	22.8	38.9	-18.7	36.0	
Material Design	-33.8	-15.6	39.8	350.8	42.9	9.7	-80.4	-23.9	-2.7	26.8	
Aerospace	88.6	9.6	133.7	11.3	6.9	4.9	-19.3	-21.9	79.2	36.7	
Weapons and Nuclear	21.8	-0.2	-12.9	4.7	17.9	25.9	-5.1	31.7	0.1	-10.4	
Total	-12.0	36.6	10.0	2.5	4.4	-6.3	15.2	19.2	20.5	11.4	

^r Revised^p Preliminary

Source: BC Stats

Table 36. Balance of Trade in High Technology Goods with the Pacific Rim, by Commodity Group, 1995-2005

	Balance (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Biotechnology	-0.3	-0.3	-0.3	-1.3	-2.2	-2.7	-2.0	-1.3	-1.2	-0.8	-0.1
Life Sciences	-14.1	-19.6	-16.1	-16.1	-22.1	-23.8	-32.5	-29.4	-26.1	-29.1	-23.2
Opto-Electronics	-32.5	-31.8	-39.3	-40.0	-37.7	-41.6	-54.6	-45.0	-56.1	-64.7	-88.6
Computers and Telecommunications	-362.0	-292.9	-422.3	-485.2	-514.0	-583.1	-620.8	-765.4	-955.1	-1,154.8	-1,272.2
Electronics	-177.6	-118.4	-187.4	-210.5	-181.0	-64.1	-51.2	-85.7	-21.2	-30.4	17.6
Computer Integrated Manufacturing	-19.5	-17.1	-17.5	-12.7	-15.6	-20.2	-16.7	-21.3	-27.1	-11.4	-21.9
Material Design	-2.2	-1.5	-1.4	-1.8	-8.7	-12.4	-11.4	-2.6	-2.0	-1.9	-2.2
Aerospace	7.6	-1.6	-0.7	-10.6	-11.7	-11.4	-14.4	0.7	-2.9	20.1	5.3
Weapons and Nuclear	-1.0	-0.9	-1.2	-1.3	-0.9	0.5	-2.1	-0.3	-1.7	-2.3	1.4
Total	-601.6	-484.2	-686.3	-779.5	-793.9	-758.9	-805.7	-950.2	-1,093.5	-1,275.3	-1,383.9

Note: The trade balance is the net of total exports minus total imports. Total exports include re-exports, whereas domestic exports are shipments of goods produced within Canada only (in the case of tables in this report, within BC only).

^r Revised^p Preliminary

Source: BC Stats

Table 37. Domestic Exports of High Technology Goods to Mainland China, by Commodity Group, 1995-2005

	Value (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p
Biotechnology	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Life Sciences	0.1	0.0	0.1	0.4	0.2	0.4	1.5	0.8	3.0	2.0	6.2
Opto-Electronics	0.2	0.1	0.4	0.1	0.1	0.0	0.2	0.1	0.2	0.1	0.3
Computers and Telecommunications	2.4	16.1	19.1	22.8	17.1	1.5	1.2	1.9	4.6	9.4	11.9
Electronics	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.4	0.2	1.4
Computer Integrated Manufacturing	0.7	0.2	0.5	3.8	0.2	0.1	0.1	1.0	1.5	2.3	3.3
Material Design	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Aerospace	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.2
Weapons and Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
Total	3.3	16.4	20.1	27.1	17.7	2.3	3.0	4.1	10.3	14.4	23.3

	% change from previous year										
	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p	
Biotechnology	-	-	-	-	-	-100.0	-	-	-	-	
Life Sciences	-100.0	-	387.2	-45.7	66.3	281.7	-44.6	267.8	-32.3	207.3	
Opto-Electronics	-6.3	180.2	-74.5	-18.6	-41.3	269.7	-32.1	31.1	-22.5	137.0	
Computers and Telecommunications	581.2	18.9	19.7	-25.1	-91.1	-22.1	63.0	136.7	105.9	26.7	
Electronics	-	-	-100.0	-	89.9	-84.1	2111.9	49.8	-48.5	645.3	
Computer Integrated Manufacturing	-77.9	238.6	624.4	-95.0	-57.0	-16.0	1298.3	62.2	48.0	43.2	
Material Design	-	-	-	-	-	-	-99.1	-100.0	-	-100.0	
Aerospace	-	-	-100.0	-	-	-100.0	-	256.6	458.3	-30.4	
Weapons and Nuclear	-	-	-	-	-100.0	-	24093.5	4179.1	-95.6	-100.0	
Total	400.6	23.1	34.9	-34.9	-87.0	29.5	36.6	152.5	39.6	61.8	

^f Revised^p Preliminary

Source: BC Stats

Table 38. Imports of High Technology Goods from Mainland China, by Commodity Group, 1995-2005

	Value (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p
Biotechnology	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1
Life Sciences	1.7	2.3	2.8	2.7	4.5	5.7	7.8	8.3	7.7	9.3	6.5
Opto-Electronics	3.1	4.2	6.0	7.9	7.6	11.0	20.3	23.8	28.4	37.0	60.0
Computers and Telecommunications	21.4	24.4	34.7	39.8	55.2	79.6	110.3	183.4	318.6	481.0	625.2
Electronics	0.5	0.7	1.3	1.8	2.4	2.7	1.8	4.0	5.3	11.3	13.6
Computer Integrated Manufacturing	0.5	0.4	0.6	0.8	0.8	1.0	1.2	1.8	1.6	2.5	3.5
Material Design	0.0	0.0	0.0	0.0	0.1	0.4	2.0	0.4	0.5	0.7	1.1
Aerospace	0.2	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.6	0.8	1.1
Weapons and Nuclear	0.1	0.2	0.2	0.3	0.3	0.5	0.8	0.7	1.1	1.1	0.9
Total	27.6	32.5	46.0	53.6	71.2	101.2	144.7	223.0	363.9	543.9	712.1

	% change from previous year										
	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p	
Biotechnology	506.3	-42.7	154.7	48.0	123.6	22.3	91.5	-50.9	-19.8	74.4	
Life Sciences	35.1	21.2	-3.0	65.9	24.9	37.2	7.0	-7.3	20.8	-30.0	
Opto-Electronics	36.0	43.6	31.1	-4.3	45.0	85.1	17.5	19.3	30.3	62.0	
Computers and Telecommunications	14.0	42.2	14.9	38.5	44.2	38.6	66.3	73.7	51.0	30.0	
Electronics	31.9	83.4	32.4	36.6	12.3	-33.9	122.2	32.8	115.3	20.5	
Computer Integrated Manufacturing	-28.0	74.3	17.6	6.5	22.2	20.2	54.7	-13.1	60.5	39.2	
Material Design	163.6	-34.7	20.1	235.1	615.3	435.7	-81.9	32.2	44.9	67.1	
Aerospace	14.1	25.5	-10.5	7.8	18.4	42.0	-29.3	67.7	28.1	31.1	
Weapons and Nuclear	121.3	-16.9	34.7	16.9	59.9	49.7	-6.2	51.6	-1.1	-18.3	
Total	17.9	41.5	16.4	32.9	42.1	42.9	54.1	63.2	49.5	30.9	

^f Revised^p Preliminary

Source: BC Stats

Table 39. Balance of Trade in High Technology Goods with Mainland China, by Commodity Group, 1995-2005

	Balance (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p
Biotechnology	-1.7	-2.3	-2.8	-2.7	-4.5	-5.5	-7.8	-8.3	-7.7	-9.3	-6.5
Life Sciences	-3.0	-4.2	-5.9	-7.4	-7.3	-10.6	-18.7	-22.9	-25.4	-34.1	-53.7
Opto-Electronics	-21.2	-24.2	-34.3	-39.7	-55.1	-79.5	-110.1	-183.3	-318.4	-480.9	-624.9
Computers and Telecommunications	1.8	15.4	17.9	21.6	15.0	0.0	-0.6	-1.7	5.7	-0.7	0.4
Electronics	-0.5	-0.4	-0.6	-0.8	-0.7	8.3	3.6	1.3	13.7	8.2	6.8
Computer Integrated Manufacturing	0.7	0.1	0.5	3.8	0.1	-0.2	-1.9	0.6	1.4	3.2	2.8
Material Design	-0.2	-0.3	-0.3	-0.3	-0.3	-0.4	1.6	-0.4	-0.6	-0.8	-1.1
Aerospace	-0.1	-0.2	-0.2	-0.2	0.6	-0.5	-0.5	-0.7	-0.8	-0.6	-0.2
Weapons and Nuclear	-0.1	-0.2	-0.2	-0.3	-0.3	-0.5	-0.8	-0.7	-0.5	-1.1	-0.9
Total	-24.3	-16.1	-25.7	-25.7	-52.1	-88.4	-134.5	-215.5	-331.6	-515.1	-676.4

Note: The trade balance is the net of total exports minus total imports. Total exports include re-exports, whereas domestic exports are shipments of goods produced within Canada only (in the case of tables in this report, within BC only).

^f Revised^p Preliminary

Source: BC Stats

Table 40. Domestic Exports of High Technology Goods to Japan, by Commodity Group, 1995-2005

	Value (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p
Biotechnology	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.3	0.4
Life Sciences	3.9	1.7	1.2	0.9	1.5	2.3	0.6	0.5	0.8	1.4	1.7
Opto-Electronics	0.5	0.5	0.2	0.2	0.6	8.8	1.2	9.3	1.1	1.3	5.2
Computers and Telecommunications	8.0	13.5	15.2	5.5	1.9	16.5	6.2	2.6	3.1	4.2	5.7
Electronics	0.9	1.3	1.5	1.0	0.2	0.4	1.4	1.0	0.1	0.2	0.2
Computer Integrated Manufacturing	0.3	1.3	0.6	0.0	0.2	0.0	0.1	0.1	0.4	3.1	2.4
Material Design	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Aerospace	0.0	0.0	0.3	0.9	0.7	0.4	0.2	8.6	1.8	0.5	0.6
Weapons and Nuclear	0.0	0.3	0.3	0.0	0.1	1.9	0.0	0.0	0.0	0.2	3.8
Total	13.6	18.7	19.3	8.6	5.2	30.4	9.7	22.0	7.3	11.1	20.0
	% change from previous year										
	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p	
Biotechnology	588.7	-100.0	-	-100.0	-	-100.0	-	-	326.3	52.1	
Life Sciences	-57.3	-30.0	-23.8	66.5	53.1	-75.7	-10.5	60.3	73.0	27.8	
Opto-Electronics	12.0	-56.3	-26.1	260.2	1343.6	-86.0	653.0	-88.5	18.3	306.6	
Computers and Telecommunications	68.1	12.2	-63.6	-66.2	784.3	-62.6	-58.1	21.0	34.6	36.6	
Electronics	53.4	14.2	-34.0	-84.6	173.8	225.9	-31.2	-93.3	153.6	-3.3	
Computer Integrated Manufacturing	435.3	-52.3	-93.9	428.7	-99.7	9357.1	10.6	448.0	788.7	-23.8	
Material Design	-100.0	-	-	-100.0	-	-	-100.0	-	20.7	-83.5	
Aerospace	-89.8	8435.7	199.2	-17.6	-50.0	-41.1	3770.8	-78.8	-73.6	15.5	
Weapons and Nuclear	790.8	-21.1	-95.3	1039.2	1247.7	-99.6	574.4	-0.9	215.1	2422.0	
Total	37.6	2.9	-55.4	-39.5	483.0	-68.0	127.1	-66.6	50.5	80.8	

^f Revised^p Preliminary

Source: BC Stats

Table 41. Imports of High Technology Goods from Japan, by Commodity Group, 1995-2005

	Value (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p
Biotechnology	0.2	0.4	0.1	0.1	0.2	0.6	0.2	0.4	0.2	0.1	0.1
Life Sciences	11.4	10.7	10.1	11.3	14.3	14.6	17.1	16.3	16.3	18.4	19.6
Opto-Electronics	20.7	16.2	18.0	16.3	16.6	23.0	20.4	18.8	19.5	18.6	24.7
Computers and Telecommunications	149.8	144.4	198.8	204.5	192.6	178.8	164.6	178.4	173.9	182.3	179.8
Electronics	74.3	39.0	51.6	58.1	57.6	54.6	30.8	31.0	20.3	21.3	18.9
Computer Integrated Manufacturing	21.0	16.8	18.9	14.9	17.5	20.5	15.0	17.2	28.0	19.2	28.8
Material Design	2.1	1.3	1.3	1.5	7.0	7.9	7.5	1.5	1.1	0.8	0.7
Aerospace	0.6	3.0	4.0	12.4	14.3	15.3	15.4	12.1	9.2	16.6	22.5
Weapons and Nuclear	0.8	0.8	0.9	0.5	0.5	0.8	1.0	0.8	0.9	0.9	0.8
Total	281.0	232.5	303.7	319.6	320.5	316.1	272.0	276.6	269.4	278.2	295.9
	% change from previous year										
	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p	
Biotechnology	80.1	-62.3	-43.8	235.6	123.0	-56.8	46.4	-29.2	-64.7	-29.6	
Life Sciences	-6.4	-5.2	11.9	26.0	2.5	16.4	-4.3	-0.1	12.9	6.7	
Opto-Electronics	-21.9	11.1	-9.1	1.4	38.9	-11.1	-8.2	4.1	-4.8	32.8	
Computers and Telecommunications	-3.6	37.7	2.8	-5.8	-7.1	-8.0	8.4	-2.5	4.8	-1.3	
Electronics	-47.5	32.3	12.7	-1.0	-5.1	-43.6	0.7	-34.6	5.0	-11.3	
Computer Integrated Manufacturing	-19.8	12.5	-21.3	17.3	17.5	-26.7	14.2	63.3	-31.5	50.1	
Material Design	-40.0	-0.5	15.2	380.4	12.1	-5.2	-79.3	-30.8	-26.9	-9.5	
Aerospace	393.5	32.5	209.7	15.5	7.0	0.3	-20.9	-24.6	81.4	35.2	
Weapons and Nuclear	-1.2	13.9	-41.6	-9.0	63.4	35.0	-19.1	10.9	-0.4	-16.1	
Total	-17.2	30.6	5.2	0.3	-1.4	-14.0	1.7	-2.6	3.2	6.4	

^f Revised^p Preliminary

Source: BC Stats

Table 42. Balance of Trade in High Technology Goods with Japan, by Commodity Group, 1995-2005

	Balance (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p
Biotechnology	-11.4	-10.7	-10.1	-11.3	-14.3	-14.6	-17.1	-16.3	-16.2	-18.1	-19.2
Life Sciences	-16.8	-14.5	-16.8	-15.4	-15.0	-20.6	-19.9	-18.1	-18.2	-17.1	-22.7
Opto-Electronics	-149.2	-143.6	-108.4	-204.3	-192.0	-170.0	-163.3	-169.0	-172.8	-181.0	-174.6
Computers and Telecommunications	-66.0	-21.8	-31.4	-52.4	-55.5	-38.0	-23.9	-28.0	-16.5	-16.4	-12.4
Electronics	-19.1	-13.9	-14.4	-8.4	-5.9	20.8	1.0	-2.1	-7.2	2.8	1.0
Computer Integrated Manufacturing	-1.9	0.1	-0.6	-1.4	-6.8	-7.9	-7.4	-1.5	-0.7	2.4	1.7
Material Design	-0.6	-3.0	-4.0	-12.3	-14.3	-15.3	-15.3	-12.1	-9.1	-16.6	-22.4
Aerospace	8.3	-0.4	-0.2	1.4	0.6	-0.1	-0.6	7.8	1.0	-0.3	0.1
Weapons and Nuclear	-0.7	-0.4	-0.6	-0.5	-0.3	1.2	-1.0	-0.8	-0.9	-0.8	3.0
Total	-256.9	-207.8	-275.9	-304.3	-303.3	-244.3	-246.7	-239.7	-240.1	-244.3	-244.8

Note: The trade balance is the net of total exports minus total imports. Total exports include re-exports, whereas domestic exports are shipments of goods produced within Canada only (in the case of tables in this report, within BC only).

^f Revised^p Preliminary

Source: BC Stats

Table 43. Domestic Exports of High Technology Goods to the European Union, by Commodity Group, 1995-2005

	Value (\$'000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p
Biotechnology	1.0	0.0	0.1	1.3	0.1	0.0	0.0	0.1	0.3	1.0	1.4
Life Sciences	2.3	2.0	2.1	4.4	4.8	4.3	4.0	11.8	17.3	26.8	19.6
Opto-Electronics	3.2	2.1	5.4	7.1	8.7	17.3	24.4	3.4	3.0	3.2	3.6
Computers and Telecommunications	20.6	21.6	22.2	40.6	33.8	20.1	27.4	20.7	20.0	18.7	24.1
Electronics	1.2	0.4	1.1	1.2	0.7	0.8	1.1	0.4	0.2	2.0	0.3
Computer Integrated Manufacturing	0.9	0.9	1.2	0.7	1.1	1.4	0.9	1.1	2.1	8.4	10.4
Material Design	0.0	0.0	0.0	0.0	0.0	0.2	6.8	0.0	0.2	0.1	0.2
Aerospace	2.8	2.4	1.3	3.1	3.6	13.6	22.5	19.9	7.8	4.6	10.3
Weapons and Nuclear	0.9	0.2	0.0	0.3	1.0	2.5	0.3	0.8	0.3	0.2	0.0
Total	32.9	29.6	33.4	58.5	53.7	60.2	87.5	58.1	51.3	65.1	69.9
	% change from previous year										
	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p	
Biotechnology	-98.4	312.2	1856.3	-94.9	-100.0	-	606.6	219.6	264.1	42.7	
Life Sciences	-13.0	7.2	107.5	9.5	-11.1	-5.7	194.1	46.9	54.8	-26.9	
Opto-Electronics	-33.4	154.8	31.0	22.3	99.1	41.2	-86.2	-11.4	7.9	12.0	
Computers and Telecommunications	4.6	3.0	82.7	-16.6	-40.6	36.4	-24.5	-3.2	-6.4	28.9	
Electronics	-66.4	177.3	6.7	-40.6	12.4	39.7	-63.6	-40.8	782.5	-87.8	
Computer Integrated Manufacturing	0.6	25.5	-39.6	51.9	31.8	-39.3	23.6	101.8	294.3	22.8	
Material Design	-	-100.0	-	-	1364.7	2663.1	-99.7	944.6	-66.8	184.4	
Aerospace	-15.3	-43.8	131.0	17.1	278.5	65.0	-11.6	-60.7	-41.0	123.4	
Weapons and Nuclear	-73.2	-91.8	1165.9	276.9	164.2	-86.4	136.8	-63.4	-34.0	-93.2	
Total	-9.9	12.8	75.3	-8.2	12.2	45.2	-33.6	-11.8	27.0	7.3	

^f Revised^p Preliminary

Source: BC Stats

Table 44. Imports of High Technology Goods from the European Union, by Commodity Group, 1995-2005

	Value (\$000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p
Biotechnology	4.7	5.6	8.0	12.1	8.2	10.1	28.9	21.4	17.7	16.3	16.3
Life Sciences	54.5	61.2	76.4	82.9	94.4	116.9	133.0	132.6	141.1	135.0	142.9
Opto-Electronics	2.6	3.3	3.4	3.1	3.6	5.9	5.5	8.2	9.4	10.1	10.7
Computers and Telecommunications	66.0	50.7	69.6	85.8	114.3	190.5	104.6	110.2	107.9	115.1	96.6
Electronics	39.3	34.2	35.3	50.0	48.3	34.0	15.9	20.5	25.2	28.6	22.2
Computer Integrated Manufacturing	18.1	19.1	16.3	12.4	13.7	18.9	20.9	25.6	22.1	25.6	27.0
Material Design	1.2	1.5	1.3	2.6	4.3	12.8	15.0	2.7	3.1	2.9	2.4
Aerospace	63.9	121.7	292.8	244.8	375.8	260.1	446.9	350.8	155.3	119.7	88.9
Weapons and Nuclear	8.5	8.8	8.0	6.1	5.8	8.8	8.7	5.7	5.4	10.7	3.9
Total	258.9	306.3	511.1	499.9	668.4	658.0	779.3	677.5	487.2	464.0	410.9

	% change from previous year										
	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p	
Biotechnology	20.7	42.3	51.1	-31.8	22.4	185.9	-25.9	-17.3	-8.0	0.0	
Life Sciences	12.3	24.7	8.6	13.8	23.9	13.8	-0.3	6.5	-4.3	5.9	
Opto-Electronics	26.9	1.5	-9.4	17.8	63.3	-7.5	49.2	14.8	7.8	5.9	
Computers and Telecommunications	-23.2	37.1	23.3	33.2	66.7	-45.1	5.3	-2.1	6.7	-16.1	
Electronics	-12.8	3.2	41.6	-3.4	-29.6	-53.3	29.3	22.7	13.7	-22.5	
Computer Integrated Manufacturing	5.2	-14.5	-24.2	10.6	38.4	10.6	22.1	-13.5	15.6	5.7	
Material Design	33.0	-17.9	110.7	62.9	195.5	17.4	-81.9	14.1	-6.6	-17.5	
Aerospace	90.5	140.6	-16.4	53.5	-30.8	71.8	-21.5	-55.7	-22.9	-25.7	
Weapons and Nuclear	2.8	-8.7	-23.8	-6.0	52.5	-0.4	-35.1	-4.3	97.0	-63.4	
Total	18.3	66.9	-2.2	33.7	-1.6	18.4	-13.1	-28.1	-4.8	-11.4	

^f Revised^p Preliminary

Source: BC Stats

Table 45. Balance of Trade in High Technology Goods with the European Union, by Commodity Group, 1995-2005

	Balance (\$'000,000)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^f	2003 ^f	2004 ^f	2005 ^p
Biotechnology	-3.7	-5.6	-7.9	-10.8	-8.2	-10.1	-28.8	-21.3	-17.4	-15.3	-14.9
Life Sciences	-52.2	-59.2	-74.1	-78.4	-89.5	-112.5	-129.0	-120.5	-123.7	-108.0	-121.0
Opto-Electronics	0.6	-1.0	2.2	4.0	5.1	11.7	19.3	-4.8	-6.1	-6.6	-6.9
Computers and Telecommunications	-43.6	-27.2	-45.3	-43.5	-77.0	-162.7	-73.2	-86.0	-82.4	-90.9	-61.8
Electronics	-37.5	-31.6	-28.6	-43.0	-35.2	1.0	3.8	-13.0	-3.2	4.4	14.5
Computer Integrated Manufacturing	-17.2	-18.0	-15.2	-11.7	-12.6	-17.5	-20.0	-24.5	-19.9	-16.9	-15.5
Material Design	-1.1	-1.5	-1.3	-2.6	-4.3	-12.5	-8.1	-2.7	-2.8	-2.7	-1.6
Aerospace	-59.4	-118.6	-290.6	-240.2	-369.9	-237.8	-416.8	-318.6	-140.3	-108.4	-66.3
Weapons and Nuclear	-7.5	-8.5	-7.9	-5.8	-4.6	-5.9	-8.3	-4.8	-4.7	-10.4	-3.4
Total	-221.6	-271.2	-468.7	-432.0	-596.1	-546.4	-661.4	-596.1	-400.6	-354.9	-276.9

Note: The trade balance is the net of total exports minus total imports. Total exports include re-exports, whereas domestic exports are shipments of goods produced within Canada only (in the case of tables in this report, within BC only).

^f Revised^p Preliminary

Source: BC Stats

Table 46. Exports of High Technology Services, 1997-2005

BRITISH COLUMBIA Value (\$ millions)									
	1997	1998 ^r	1999 ^r	2000 ^r	2001 ^r	2002 ^r	2003 ^r	2004 ^r	2005 ^p
Computer and Related Services	237	456	687	907	957	823	993	1,196	1,282
Motion Picture Production & Post-Production	16	45	234	190	175	252	376	235	404
Telecommunications and Related	205	221	199	169	152	178	183	178	183
Engineering Services	443	222	169	103	137	112	216	211	216
Other Services	52	60	55	72	84	221	198	180	166
Total	954	1,004	1,343	1,440	1,505	1,585	1,967	2,008	2,251
% change from previous year									
	1998 ^r	1999 ^r	2000 ^r	2001 ^r	2002 ^r	2003 ^r	2004 ^r	2005 ^p	
Computer and Related Services	92.3	50.5	32.0	5.6	-14.0	20.8	20.4	7.2	
Motion Picture Production & Post-Production	173.8	421.0	-18.9	-7.7	43.9	48.9	-37.4	71.8	
Telecommunications and Related	7.7	-10.0	-15.3	-9.6	16.6	3.1	-2.8	3.0	
Engineering Services	-50.0	-23.9	-39.0	33.0	-18.2	93.6	-2.4	2.1	
Other Services	14.3	-8.5	30.9	17.4	162.2	-10.2	-5.2	-11.6	
Total	5.2	33.8	7.2	4.6	5.3	24.1	2.1	12.1	
CANADA Value (\$ millions)									
	1997	1998	1999	2000	2001	2002	2003	2004	2005 ^p
Computer and Related Services	2,675	2,984	4,728	5,469	5,601	5,075	4,729	4,919	4,987
Motion Picture Production & Post-Production	609	645	921	799	896	906	861	953	984
Telecommunications and Related	1,352	1,494	1,398	1,219	1,444	1,473	1,484	1,692	1,743
Engineering Services	1,394	1,384	1,104	950	1,076	1,304	1,458	1,822	1,824
Other Services	299	368	347	414	578	1,363	1,253	1,191	1,211
Total	6,329	6,875	8,498	8,852	9,595	10,201	9,784	10,578	10,749
% change from previous year									
	1998	1999	2000	2001	2002	2003	2004	2005 ^p	
Computer and Related Services	11.5	58.5	15.7	2.4	-9.4	-6.8	4.0	1.4	
Motion Picture Production & Post-Production	5.8	42.8	-13.2	12.1	10.0	-12.8	10.7	3.3	
Telecommunications and Related	10.5	-6.4	-12.8	18.5	2.0	0.7	14.0	3.0	
Engineering Services	-0.7	-20.2	-14.0	13.2	21.2	11.8	25.0	0.1	
Other Services	23.1	-5.7	19.3	39.6	135.9	-8.1	-4.9	1.6	
Total	8.6	23.6	4.2	8.4	6.3	-4.1	8.1	1.6	

^r Revised^p Preliminary

Source: BC Stats and Statistics Canada

Table 47. Domestic Exports of High Technology Goods by Province, 1995-2005

Value (\$ millions)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2005 ^p
British Columbia	406.8	450.6	581.4	769.2	840.1	923.1	748.1	684.6	635.2	703.9
Alberta	918.8	1,386.1	1,238.4	1,540.9	1,915.6	4,375.7	2,439.0	1,889.6	1,181.6	1,023.6
Ontario	10,891.6	10,189.7	10,899.2	11,782.7	12,338.3	15,186.1	13,512.8	10,282.4	8,430.5	10,899.1
Quebec	7,663.7	9,035.0	9,801.7	11,860.1	13,835.2	20,677.2	16,948.2	14,496.9	14,269.4	13,608.7
Canada	20,288.2	21,643.7	23,229.3	26,829.2	29,854.5	42,221.3	34,594.9	28,012.8	25,163.8	26,870.1
% change from previous year										
	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p
British Columbia	10.8	29.0	32.3	9.2	9.9	-19.0	-8.5	-7.2	8.1	2.6
Alberta	50.9	-10.7	24.4	24.3	128.4	-44.3	-22.5	-37.5	-4.3	-9.4
Ontario	-6.4	7.0	8.1	4.7	23.1	-11.0	-23.9	-18.0	11.2	16.2
Quebec	17.9	8.5	21.0	16.7	49.5	-18.0	-14.5	-1.6	-7.3	2.9
Canada	6.7	7.3	15.5	11.3	41.4	-18.1	-19.0	-10.2	-0.8	7.6
High Technology Share of Total Domestic Exports (%)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2005 ^p
British Columbia	1.5	1.7	2.2	3.0	2.9	2.7	2.4	2.4	2.3	2.1
Alberta	3.4	4.4	3.7	5.0	5.5	7.9	4.3	3.9	2.1	1.3
Ontario	8.9	8.0	7.8	7.6	7.0	8.2	7.6	5.7	5.0	6.0
Quebec	16.9	19.3	19.5	21.4	23.2	29.0	24.9	22.1	23.4	20.3
Canada	8.2	8.3	8.3	9.0	9.0	10.9	9.2	7.7	7.1	6.6

Note that high technology exports for Canada, Alberta, Ontario and Quebec are based on high tech definitions developed for British Columbia. If these definitions were derived specifically for any of those regions, they might differ slightly.

^r Revised^p Preliminary

Source: BC Stats

Table 48. Imports of High Technology Goods, Canada and BC, 1995-2005

	Value (\$ millions)										
	1995	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p
British Columbia	2,757.2	2,842.9	3,658.8	3,978.1	4,249.3	4,475.0	4,480.6	4,306.1	4,105.2	4,436.6	4,649.6
Canada	32,863.0	34,008.4	40,106.6	42,519.1	48,284.9	57,512.4	50,399.2	44,305.2	40,876.6	44,085.9	46,386.9
	% change from previous year										
	1996	1997	1998	1999	2000	2001	2002 ^r	2003 ^r	2004 ^r	2005 ^p	
British Columbia		3.1	28.7	8.7	6.8	5.3	0.1	-3.9	-4.7	8.1	4.8
Canada		3.5	17.9	6.0	13.6	19.1	-12.4	-12.1	-7.7	7.9	5.2

Note that high technology imports for Canada are based on high tech definitions developed for British Columbia. If these definitions were derived specifically for any of those regions, they might differ slightly.

^r Revised

^p Preliminary

Source: BC Stats

Table 49. United States High Technology Commodity Trade, 1995-2005

	Value (\$US millions)										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Domestic Exports	120,668.2	133,241.6	157,958.2	168,296.1	178,519.9	197,109.5	172,412.2	153,273.5	151,535.4	166,441.8	177,599.6
Re-Exports	17,504.0	19,280.1	19,637.3	18,256.3	21,488.0	30,051.5	27,694.6	25,353.8	28,251.2	35,012.2	38,006.1
Imports	124,675.6	129,265.8	145,055.5	156,528.2	180,646.3	222,146.4	195,265.2	196,100.1	207,195.8	238,478.3	259,968.7
Balance of Trade	13,496.5	23,256.0	32,539.9	30,024.2	19,361.5	5,014.6	4,841.5	-17,472.8	-27,409.3	-37,024.2	-44,363.0
	% change from previous year										
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	
Domestic Exports	10.4	18.6	6.5	6.1	10.4	-12.5	-11.1	-1.1	9.8	6.7	
Re-Exports	10.1	1.9	-7.0	17.7	39.9	-7.8	-8.5	11.4	23.9	8.6	
Imports	3.7	12.2	7.9	15.4	23.0	-12.1	0.4	5.7	15.1	9.0	
Balance of Trade	72.3	39.9	-7.7	-35.5	-74.1	-3.5	-460.9	56.9	35.1	19.8	

Source: BC Stats and US Department of Commerce

Table 50. High Technology Trade Comparison: United States vs. Canada and BC (in Canadian \$), 1995-2005

	Value (\$Cdn millions)										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Domestic Exports											
United States*	165,610.4	181,677.9	218,708.6	249,668.2	265,227.9	292,785.2	267,038.9	240,691.9	212,303.3	216,587.8	215,145.1
British Columbia	406.8	450.6	581.4	769.2	840.1	923.1	748.1	684.6	635.2	686.4	703.9
Canada	20,288.2	21,643.7	23,229.3	26,829.2	29,854.5	42,221.3	34,594.9	28,012.8	25,163.8	24,965.8	26,870.1
Imports											
United States*	171,110.5	176,256.7	200,843.6	232,210.4	268,387.2	329,975.0	302,434.6	307,944.4	290,284.5	310,327.5	314,927.4
British Columbia	2,757.2	2,842.9	3,658.8	3,978.1	4,249.3	4,475.0	4,480.6	4,306.1	4,105.2	4,436.6	4,649.6
Canada	32,863.0	34,008.4	40,106.6	42,519.1	48,284.9	57,512.4	50,399.2	44,305.2	40,876.6	44,085.9	46,386.9
	% change from previous year										
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	
Domestic Exports											
United States*	9.7	20.4	14.2	6.2	10.4	-8.8	-9.9	-11.8	2.0	-0.7	
British Columbia	10.8	29.0	32.3	9.2	9.9	-19.0	-8.5	-7.2	8.1	2.6	
Canada	6.7	7.3	15.5	11.3	41.4	-18.1	-19.0	-10.2	-0.8	7.6	
Imports											
United States*	3.0	13.9	15.6	15.6	22.9	-8.3	1.8	-5.7	6.9	1.5	
British Columbia	3.1	28.7	8.7	6.8	5.3	0.1	-3.9	-4.7	8.1	4.8	
Canada	3.5	17.9	6.0	13.6	19.1	-12.4	-12.1	-7.7	7.9	5.2	

* Converted from US dollars using an average annual exchange rate

Source: BC Stats and US Department of Commerce

Appendix A: Defining the High Technology Sector

How was the sector definition arrived at?

In 1995, BC STATS and the Science and Technology Division of the Ministry of Employment and Investment developed a definition of the high technology sector that focused on standard industries that produce high technology goods and services as their ultimate outputs. The definition looked at the high tech outputs of various standard industries (industries defined in the Canadian Standard Industrial Classification—SIC), their level of research activity, their representation in existing lists of high tech companies, and the opinions of an expert panel drawn from government, university, and the private sector.¹⁷ The SIC data series have since been discontinued and a new classification system, the North American Industry Classification System (NAICS), has been implemented.

The adoption of NAICS-based industry definitions made it necessary to revisit the definition on which the high-tech estimates were based, since many of the industry groupings previously used were no longer available. During 2001, in consultation with industry stakeholders, BC STATS developed a new definition of the high technology sector that was based on the NAICS industry categories. The process of developing the criteria for including or excluding specific industries in the definition was similar to that of the original SIC-based definition as commodity lists, research activities and company lists were once again examined. In addition, since an accepted SIC-based definition was already available, an SIC to NAICS concordance was used as a starting point.¹⁸

The definition originally chosen (based on theoretical considerations) proved to be only a starting point, as much of the information required to compile high technology statistics was not available at the required level of detail. A working definition, based on

¹⁷ The complete methodology is presented in Lawrance, J. and Miller, S. *Defining the British Columbia High Technology/Knowledge Sector*. (1996). BC STATS, Ministry of Government Services, and Ministry of Employment and Investment, Government of British Columbia. This document is available on-line at:

http://www.bcstats.gov.bc.ca/data/bus_stat/busind/hi_tech/ht_def.pdf

¹⁸ A more detailed discussion of the methodology is presented in Miller, S. and Adams, S. *Defining the British Columbia High Technology Sector Using NAICS*. (2001). BC STATS, Ministry of Management Services, Government of British Columbia. This document is available on-line at:

http://www.bcstats.gov.bc.ca/data/bus_stat/busind/hi_tech/NAICSdef.pdf

availability of data, was adopted in order to prepare the estimates presented in the *Profile* report.

In recent years, a more broadly-based view of high technology has evolved, which encompasses some industries not considered high tech just a few years ago, such as various communications technologies. In recognition of this, the definition was expanded in 2005 to include some of these industries. The new industries added to the existing definition were determined through a review of literature pertaining to high technology definitions in use elsewhere, particularly those from the American Electronics Association (whose definition has been widely used by institutions around the world) and Industry Canada.¹⁹

Are all high tech companies included?

It is recognized that there are some drawbacks to the industry-based definition employed here. The first is that the NAICS does not fully recognize industries of the "new economy." As a result, new products and services are often grouped in an industry that primarily produces similar but distinctly different products and services.

Second, it is difficult to capture the full breadth of high technology or knowledge-intensive activity in the economy through NAICS-based definitions. Innovation is not unique to a specific group of industries, but can be found throughout the whole economy. Some firms on the "leading edge" will be missed if they are classified in industries that, in aggregate, fail to show high tech characteristics. On the other hand, it is impossible to remove those firms in the industries in the sector that lag behind the industry norm.

The industries included in the definition adopted for this profile represent the core of the high technology sector. While it is certainly true that examples of creativity and innovation can be found in every industry, this definition, with its industry focus, includes only those industries where high technology activity is concentrated.

¹⁹ Platzer, M., Novak, C.A. and Kazmierczak, M.F. (February 2003). *Defining the High-Tech Industry*. American Electronics Association.

E. Wayne Clendenning & Associates (May 2000). *Comparison and Reconciliation of SIC and NAICS Industry Codes Used to Define Knowledge-Based Industries (KBIs)*. Industry Canada.

Exactly which industries are included?

The table below lists the industries that are defined, for the purpose of this report, to constitute the high technology sector.

Industries in the High Technology Sector

NAICS	Industry
Manufacturing Industries	
325189	Other Inorganic Chemicals
325410	Pharmaceutical and Medicine
333310	Commercial and Service Industry
334110	Computer and Peripheral
334210	Telephone Apparatus
334220	Radio, Television Broadcasting & Wireless Communications Equipment
334290	Other Communications Equipment
334310	Audio and Video Equipment
334410	Semiconductor and Other Electronic Components
334511	Navigational and Guidance Instruments
334512	Measuring, Medical and Controlling Devices
334610	Manufacturing and Reproducing Magnetic and Optical Media
335315	Switchgear and Switchboard, and Relay and Industrial Control Apparatus
335920	Communication and Energy Wire and Cable
335990	All Other Electrical Equipment and Component
336410	Aerospace Products and Parts
339110	Medical Equipment and Supplies
Service Industries	
511210	Software Publishers
512110	Motion Picture and Video Production
512190	Post-Production and Other Motion Picture and Video Industries
515210	Pay and Specialty Television
516110	Internet Publishing and Broadcasting
517110	Wired Telecommunications Carriers
517210	Wireless Telecommunications Carriers (Except Satellite)
517310	Telecommunications Resellers
517410	Satellite Telecommunications
517510	Cable and Other Program Distribution
517910	Other Telecommunications
518111	Internet Service Providers
518112	Web Search Portals
518210	Data Processing, Hosting and Related
541330	Engineering
541360	Geophysical Surveying and Mapping Services
541370	Surveying and Mapping (Except Geophysical) Services
541380	Testing Laboratories
541510	Computer Systems Design and Related
541620	Environmental Consulting
541690	Other Scientific and Technical Consulting
541710	Research and Development in Physical, Engineering and Life Sciences
541720	Research and Development in the Social Sciences and Humanities

Note: For the purposes of this report, the manufacturing NAICS industries are grouped together as "Manufacturing." For services, Engineering (541330) is reported as a separate industry. The other industries are aggregated into groups to maintain confidentiality requirements and still allow for some detailed reporting. Computer and Related Services includes 511210, 516110, the 518 NAICS codes and 541510. The remaining 541 NAICS codes are grouped into a category called "Other Services." The 517 NAICS codes and 515210 are covered under a single "Telecommunications and Related" classification and 512110 and 512190 are grouped under "Motion Picture Production and Post Production."

High Technology Industries

Manufacturing

325189 Other Inorganic Chemicals Comprises establishments engaged in the manufacture of high tech inorganic chemicals such as enriched uranium and radioactive isotopes.

325410 Pharmaceuticals and Medicine Consists of firms engaged in the manufacture of drugs, medicines and related products for human or animal use, including cutting edge products developed through considerable research efforts.

333310 Commercial and Service Industry Machinery Contains establishments that manufacture machinery for use in commercial and service industries, including high tech optical instruments and photographic equipment.

334110 Computers and Peripheral Equipment Comprises establishments primarily engaged in the manufacture of computers and peripheral computer equipment such as storage devices, CD-ROM and DVD drives, optical readers and scanners, etc.

334210 Telephone Apparatus Contains firms that manufacture wired telephone and data communications equipment, including cordless telephones, facsimile equipment, local area network (LAN) equipment, etc.

334220 Radio and Television Broadcasting and Wireless Communications Equipment Consists of firms primarily engaged in manufacturing radio and television broadcast and wireless communication equipment, including satellites, GPS (global positioning system) and pagers.

334290 Other Communications Equipment Comprises establishments engaged in the manufacture of other types of communications equipment, such as traffic signals, fire detection and alarm systems, remote control units, intercom systems, etc.

334310 Audio and Visual Equipment Establishments engaged in manufacturing electronic audio and video equipment such as compact disc and DVD players, televisions, etc.

334410 Semiconductor and Other Electronic Components Consists of firms engaged in the manufacture of semiconductor devices and other electronic components such as circuit boards, microprocessor chips and other computer parts, fibre-optic connectors, etc.

334511 Navigational and Guidance Instruments Comprises establishments primarily engaged in navigational and guidance instruments such as air traffic control radar systems, sonar, etc.

334512 Measuring, Medical and Controlling Devices Establishments engaged mainly in the manufacturing equipment such as high tech medical devices, laboratory analytical and testing instruments, industrial process control instruments, etc.

334610 Manufacturing and Reproducing Magnetic and Optical Media Contains establishments primarily engaged in manufacturing magnetic and optical media such as compact discs, computer software, etc.

335315 Switchgear and Switchboard, and Relay and Industrial Control Apparatus Comprises establishments engaged in manufacturing electrical switchgear and protective equipment, including high tech switching devices.

335920 Communication and Energy Wire and Cable Consists of firms engaged in the manufacture of communications and energy wire and cable such as high tech fibre-optic cable.

335990 All Other Electrical Equipment and Components Comprises establishments engaged in manufacturing electrical equipment and components, including fuel cells.

336410 Aerospace Products and Parts Establishments engaged in manufacturing aircraft, missiles, space vehicles, etc.

339110 Medical Equipment and Supplies Contains firms that manufacture medical equipment and supplies including high tech laboratory and dental equipment.

511210 Software Publishers Establishments engaged in producing and distributing computer software.

512110 Motion Picture and Video Production Comprises firms engaged in producing motion pictures, videos, television programs and commercials.

512190 Post-Production and Other Motion Picture and Video Industries Consists of establishments engaged in providing post-production services and services to the motion picture and video industries, including high tech special effects and animation.

Services

515210 Pay and Specialty Television Establishments engaged in broadcasting television programs on specialty cable networks, pay television or satellite networks.

516110 Internet Publishing and Broadcasting Comprises firms primarily engaged in publishing and/or broadcasting content on the Internet.

517110 Wired Telecommunications Carriers Consists of establishments engaged in operating and maintaining network facilities for the transmission of voice, data, text, sound and video.

517210 Wireless Telecommunications Carriers (Except Satellite) Comprises establishments engaged in operating and maintaining switching and transmission facilities to provide direct communications via the airwaves.

517310 Telecommunications Resellers Establishments that resell telecommunications services purchased from operators of telecommunications networks.

517410 Satellite Telecommunications Contains firms engaged in operating and maintaining satellite telecommunications facilities.

517510 Cable and Other Program Distribution Establishments engaged in distributing television and radio programs via cable or satellite distribution systems.

517910 Other Telecommunications Comprises establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking and telemetry, and radar station operation.

518111 Internet Service Providers Establishments that provide Internet services such as access to the Internet, web hosting and consulting related to Internet connectivity.

518112 Web Search Portals Comprises establishments engaged in operating web search portals.

518210 Data Processing, Hosting and Related Consists of firms engaged in providing hosting or data processing services.

541330 Engineering Comprises establishments engaged in engineering activities in design, development and utilization of machines, instruments, systems, etc.

541360 Geophysical Surveying and Mapping Services Establishments engaged in gathering, interpreting and mapping geophysical data.

541370 Surveying and Mapping (Except Geophysical) Services Contains firms engaged in providing surveying and mapping services of the surface of the earth, including the sea floor.

541380 Testing Laboratories Consists of establishments engaged in providing physical, chemical and other analytical testing services.

541510 Computer Systems Design and Related Establishments that provide expertise in the field of information technologies through writing and supporting computer software, and computer systems design and maintenance.

541620 Environmental Consulting Comprises establishments primarily engaged in providing consulting services on environmental issues using a staff of scientists, engineers and other technicians.

541690 Other Scientific and Technical Consulting Consists of firms engaged in providing advice and assistance on scientific and technical issues (other than environmental issues).

541710 and 541720 Scientific Research and Development Establishments engaged in research and experimental development in areas such as biotechnology, computers, physics, mathematics, etc.

Appendix B:

Defining High Technology Commodities

Defining high technology commodities

Developing a definitive list of what commodities should be considered high technology is a difficult exercise. Leading technologies are continually evolving and what is considered high technology today may be classified as low tech tomorrow. As a result, the definition of high technology commodities must necessarily change over time. This means that data regarding high technology trade from 1995 may contain commodities that are no longer included in the 2005 definition. However, this does not mean that this data cannot be compared over time. It is still valid to look at growth rates over that period as long as it is clear that the rates represent growth in the changing definition of high technology, rather than a static basket of goods.²⁰

The commodity list used by BC STATS to define high technology goods is based on the US Bureau of the Census' advanced technology products (ATP) list.²¹ The list of American commodity codes was matched against the equivalent Canadian codes. In many cases the codes matched exactly and no further effort needed to be expended. However, in other cases there was not an exact match, particularly for exports, which are coded to only eight digits. For these commodity groups, further analysis was undertaken using available data from the US Bureau of the Census and Statistics Canada to determine whether or not the majority of these codes were high technology (as defined by the ATP list). If it was judged that this was not the case, the commodity was excluded from the high tech definition. While this may result in some high technology products being excluded from the definition, it should be balanced to some extent by those commodity classifications that, although they are mainly high technology, still include some "low tech" goods. Since

²⁰ One technical limitation that may cause difficulty in temporal comparisons is when there are changes to the definition of Harmonized System codes. When this occurs, there may be a resulting unintended change to the high technology commodity definition. This is due to the fact that the code may now include or exclude commodities that it did not previously, such that these goods can no longer be separated out (or perhaps can be more finely defined, so that low technology commodities that previously had to be included can now be expunged from the definition). However, these changes are usually small and should not have a significant impact on the data.

²¹ For a discussion of the development and content of this list, see: McGuckin, R. H., Abbott, T. A., Herrick, P. and Norfolk, L. (1991). *Measuring Advanced-Technology Products Trade: A New Approach*. US Bureau of the Census.

the ATP list itself is defined using classification codes, this kind of trade-off is already present in the definition. No exact measure of high technology trade is possible to achieve since high technology is subjective to begin with, but this definition should be in line with what most people would agree is high technology.

Note that a commodity need not be produced by one of the industries included in the industry-based high technology definition in order to be considered a high technology product. Some industries not included in the high tech definition, because they mainly manufacture low technology goods, may also manufacture some high technology products. Conversely, it is possible for those industries classified as high technology to also manufacture some products that are considered low tech.

Calculating BC consumed imports

At this time, Statistics Canada does not produce data on imports by province of consumption, rather, only by province of clearance. An estimate of BC consumed imports was derived using the consumption of Canadian imports of those commodities by the BC economy and applying this ratio to total Canadian imports.

Data source

Data for trade in goods are supplied by Statistics Canada and are provided through the Trade Research and Inquiry Package (TRIP) computer reporting system at BC STATS. TRIP offers user-defined tabulations of export or import statistics for British Columbia, Canada, the United States and other countries. Tabulations can include information on commodities, countries, US states, years, months, mode of transport, etc.

Commodity groups

The US Bureau of the Census has defined ten fields involving advanced or high technology commodities. Each field represents a large number of products and processes that are considered to be on the leading edge. These fields have been used to classify exports and imports in this report.

Aerospace Technological developments in this field include advances that allow planes to fly further, faster, higher, to use less fuel and to have quieter engines. Many of the advances have been adapted to military applications, such as vertical take-off aircraft and aircraft that require shorter distances for takeoff and landings.

Biotechnology Biotechnology covers recent developments in recombinant deoxyribonucleic acid (DNA) research and genetic engineering. Obvious examples include drugs, enzymes and other therapeutic items. Common applications include agricultural production and the use of microorganisms for the production of drugs and other complex molecules.

Computer and Telecommunications This field covers technological advances affecting both computers and telecommunications hardware products. The primary advances in this field are in developing hardware that can process information more quickly. Important breakthroughs are expected in the areas of artificial intelligence and parallel processing.

Computer Integrated Manufacturing This field includes developments in robotics and numerically controlled (NC) machines. These products have a significant impact on industrial automation. Robots and NC machines perform increasingly sophisticated operations through developments in sensory and visual capabilities of machines. With these breakthroughs, the manufacturing processes have increased in flexibility and require less human intervention to operate and maintain production machinery. Many of the new automation technologies are made possible because of breakthroughs in the application and development of faster, smaller components.

Electronics The miniaturization of electronic components is the most important recent technological advance in the field of electronics. Some technologies included are integrated circuits, semiconductors, such as transistors and diodes, as well as new developments in surface mounting of electronic components such as capacitors and resistors.

Life Sciences (Medical) This field encompasses the application of scientific advances to medical sciences. Recent advances such as nuclear resonance imaging, echo cardio-graphs and total-patient monitoring systems are examples of products developed from recent technological advances in this field. Also, recent increases in the strength of materials and reductions in their weight have led to improved internally implemented fixation devices and prostheses.

Materials Design Materials design includes the newest methods of production for products that already exist in the market as well as the development of new products. Recent examples of technological advancements include high temperature superconductors, advanced polymers that expand the areas of plastic use and new ultra

clear glass that allows fibre optic cable to be used for long distance communication.

Nuclear Technology This field covers developments in nuclear power production and primary nuclear reactors. It includes newly designed reactor components that improve the safety and efficiency of nuclear power plants. It also includes developments in the creation and packaging of nuclear fuel, the application of atomic physics to medical and other areas of science.

Opto-Electronics Opto-electronics is generally defined as the expanded development and application of the laser. Also included are recent advances in photoelectric cells and diodes, photographic and other imaging equipment, and fibre-optic cables.

Weapons This field covers all advanced methods used for the development, guidance, and control of weapons intended for national or personal protection and deterrence. Many of the developments in this area are the result of breakthroughs in computers and telecommunications as well as aerospace technologies.